

ADDITIONAL REMARKS:

cocrev 3/99 Regulated indergrand storage tout

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

(509) 924-9200 (503) 906-9200

(541) 383-9310

(425) 420-9200 FAX 420-9210

FAX 924-9290

9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 FAX 382-7588

TEMP:

4.8 PAGE

FAX 906-9210

CHAIN	OF	CUSTODY	REPORT

Work Order # 2 (1507/10

	OIM I		<i>/</i> \			1/1	LULI	1 01	LW.JL			110	117) L U	11.0	1000	10		
CLIENT: BRISTOL					INVO	ICE TO):						-		TURN	IAROUNE	REQUEST in B	usiness D	ays*
REPORT TO: AME	KRANAWET	H	2		BR	157	JO.	_									ic & Inorganic Analys		
ADDRESS: AMCHT	LA ISIANN	A													10 7		American comments can	2 1	< 1
PHONE: 907-770	7.0974 FAX:7	701	0	75	PO N	UMBE	p. 6	40	00						STD.		m Hydrocarbon Anal	1 <1	1
PROJECT NAME: AMC								ED ANA							ST	D.	Please Spec	Description of the last of the	-
PROJECT NUMBER: 20	90	0	33	×												ОТНІ			
	MIAGE	RRO	C 42	100											*Turnare	ound Requests	less than standard may ir	ıcur Rush Ch	arges.
CLIENT SAMPLE	SAMPLING	Dro	TX	03											MATRIX	# OF			N-70
IDENTIFICATION	DATE/TIME	D	PA	GRO/BTEX											(W, S, O)	CONT.	COMMEN	TS	ID
1.01AMA9U 03SL	7/3/01 1430	X	X	X											5	3			
2.01AM A9 U 04SL		X	X	X											S	3			
3.0/AM A9U 05SL	, , , , , , , , , , , , , , , , , , , ,	X	X	Ŷ											S	3			
401AM A9 U 06SL		X	X	X											S	3			
5.01AM A9U 075L	· (X	X	X											S	3			
6.01AMA9U08SZ		X	X	X											S	3			
DIAMAGU OGSL	· · · · · · · · · · · · · · · · · · ·	X	X	X											5	3			
8.																			
9.																			
10.																			· · · · · · · · · · · · · · · · · · ·
11.																			
12.																			
13.																			
14.	1.00																		
15.	r In C. W																		
RELINQUISHED BY:				1	DATE:	7/3	19	RECEI	VED BY	M	a	100	91		-			DATE:	7-7-0]
PRINT NAME:	Moulal FIRMS	KIS	TO		TIME:	im	35	PRINT	NAME	NUST	AH	SAN	R.	EAR	DOOFHM:			TIME:	17:45
RELINQUISHED BY:	,				DATE:			RECEI	VED BY	Bou	hul	a	wil	-				DATE:	7/6/0100
PRINT NAME:	FIRM:				TIME:			PRINT	NAME:	1<	ach	iel.	Arri)/a	FIRM:	NCA		TIME:	18:40



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

1 December, 2001

Anne Krarawetter Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 07/06/01 18:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jerry Orlando

Project Manager/QA

fy clarks

Work Orders included in this report:

P1G0210



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924,9200
 fax 509,924,9290

Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMA9U03SL	P1G0210-01	Soil	07/03/01 14:30	07/06/01 18:40
01AMA9U04SL	P1G0210-02	Soil	07/03/01 14:35	07/06/01 18:40
01AMA9U05SL	P1G0210-03	Soil	07/03/01 14:40	07/06/01 18:40
01AMA9U06SL	P1G0210-04	Soil	07/03/01 14:45	07/06/01 18:40
01AMA9U07SL	P1G0210-05	Soil	07/03/01 14:50	07/06/01 18:40
01AMA9U08SL	P1G0210-06	Soil	07/03/01 14:55	07/06/01 18:40
01AMA9U09SL	P1G0210-07	Soil	07/03/01 15:00	07/06/01 18:40



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116 Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U03SL (P1G0210-01) Soil					Sampled: 07/03	3/01 Rece	ived: 07/06/0	01	
Gasoline Range Organics	ND	4.93	mg/kg dry	1	AK101/8021B	07/12/01	07/12/01	1071199	
Benzene	ND	0.123	"	**	"	"	07/12/01 H	"	
Toluene	ND	0.123	"	**	**	**	n		
Ethylbenzene	ND	0.123	"	**	**	**	0	"	
Xylenes (total)	ND	0.123		11	tt	"	11	**	
Surr: a,a,a-TFT (FID)	114 %	60-140							
Surr: a,a,a-TFT (PID)	97.8 %	60-140							
01AMA9U04SL (P1G0210-02) Soil					Sampled: 07/03	3/01 Rece	ived: 07/06/0	01	
Gasoline Range Organics	ND	4.00	mg/kg dry	1	AK101/8021B	07/12/01	07/12/01	1071199	· · · · ·
Benzene	ND	0.100	"	11	11	"	"	"	
Toluene	ND	0.100	H	**	*1	**	**	**	
Ethylbenzene	ND	0.100	**	**	11	**	,	**	
Xylenes (total)	ND	0.100	**	11	**	**	**	**	
Surr: a,a,a-TFT (FID)	120 %	60-140							
Surr: a,a,a-TFT (PID)	103 %	60-140							
01AMA9U05SL (P1G0210-03) Soil					Sampled: 07/03	3/01 Recei	ived: 07/06/0)1	
Gasoline Range Organics	ND	4.00	mg/kg dry	1	AK101/8021B	07/12/01	07/13/01	1071199	
Benzene	ND	0.100	"	н	"	11	"	"	
Toluene	ND	0.100	n	11		11	**	11	
Ethylbenzene	ND	0.100		11	**	**	u .	"	
Xylenes (total)	ND	0.100	"	11	**	н	"	**	
Surr: a,a,a-TFT (FID)	112 %	60-140							
Surr: a,a,a-TFT (PID)	97.5 %	60-140							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924,9200
 fax 509,924,9290

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering

2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U06SL (P1G0210-04) Soil					Sampled: 07/03	3/01 Rece	ived: 07/06/	01	
Gasoline Range Organics	NĐ	3.61	mg/kg dry	1	AK101/8021B	07/12/01	07/13/01	1071199	
Benzene	ND	0.0902	"	"	"	11	07/13/01	10/1199	
Toluene	ND	0.0902		**	,,	11	,,	**	
Ethylbenzene	ND	0.0902	0	**	11	11	,,	*1	
Xylenes (total)	ND	0.0902		#	"	"	,,	"	
Surr: a,a,a-TFT (FID)	105 %	60-140	· · · · · · · · · · · · · · · · · · ·						
Surr: a,a,a-TFT (PID)	90.1 %	60-140							
01AMA9U07SL (P1G0210-05) Soil					Sampled: 07/03	3/01 Rece	ived: 07/06/	01	
Gasoline Range Organics	ND	2.35	mg/kg dry	1	AK101/8021B	07/12/01	07/13/01	1071199	
Benzene	ND	0.0587	"	"	"	"	"	10/1199	
Toluene	ND	0.0587		**	**	**	**	**	
Ethylbenzene	ND	0.0587	**	**	**	**	"	**	
Xylenes (total)	ND	0.0587	**	u	**	11	"	н	
Surr: a,a,a-TFT (FID)	105 %	60-140							
Surr: a,a,a-TFT (PID)	90.8 %	60-140							
01AMA9U08SL (P1G0210-06) Soil					Sampled: 07/03	3/01 Recei	ived: 07/06/	01	
Gasoline Range Organics	ND	3.27	mg/kg dry	1	AK101/8021B	07/12/01	07/13/01	1071199	
Benzene	ND	0.0818	"	"	н	"	"	"	
Toluene	ND	0.0818	**	**	н	"	11	"	
Ethylbenzene	ND	0.0818	11	**		**	tt	"	
Xylenes (total)	ND	0.0818		"	11	**	**	**	
Surr: a,a,a-TFT (FID)	109 %	60-140							
Surr: a,a,a-TFT (PID)	95.0 %	60-140							

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

ookane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Project: Amchitka

Project Number: 210901, PO# 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Krarawetter

07/31/01 13:05

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U09SL (P1G0210-07) Soil					Sampled: 07/03	3/01 Rece	ived: 07/06/	01	· .
Gasoline Range Organics	ND	4.83	mg/kg dry	1	AK101/8021B	07/12/01	07/13/01	1071199	
Benzene	ND	0.121	11	"	"	11	07/13/01	10/1199	
Toluene	ND	0.121	u	**	"	*1	,,	**	
Ethylbenzene	ND	0.121	"	**	**	"		**	
Xylenes (total)	ND	0.121	"	"	11	**	**	"	
Surr: a,a,a-TFT (FID)	116 %	60-140							-
Surr: a,a,a-TFT (PID)	101 %	60-140							

North Creek Analytical - Portland



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420 9200
 fax 425 420 9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509 924 9200
 fax 509.924.9290

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541 383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

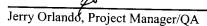
Reported:

07/31/01 13:05

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes		
01AMA9U03SL (P1G0210-01) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01	•		
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212			
Residual Range Organics	ND	50.0	**	**	**	"	"	"			
Surr: 1-Chlorooctadecane	74.7 %	75-125							S-07		
Surr: Triacontane	112 %	50-150							0 07		
01AMA9U04SL (P1G0210-02) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01			
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212			
Residual Range Organics	ND	50.0	#	**	u	"	"	"			
Surr: 1-Chlorooctadecane	72.4 %	75-125							S-07		
Surr: Triacontane	93.4 %	50-150									
01AMA9U05SL (P1G0210-03) Soil		Sampled: 07/03/01 Received: 07/06/01									
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212			
Residual Range Organics	ND	50.0	"		11	0	"	**			
Surr: 1-Chlorooctadecane	69.1 %	75-125							S-07		
Surr: Triacontane	92.9 %	50-150							20,		
01AMA9U06SL (P1G0210-04) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01			
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212			
Residual Range Organics	ND	50.0	**	"	11	**	"	H .			
Surr: 1-Chlorooctadecane	65.4 %	75-125							S-07		
Surr: Triacontane	81.4 %	50-150									
01AMA9U07SL (P1G0210-05) Soil					Sampled: 07/0	3/01 Rece:	ived: 07/06/	01			
Diesel Range Organics	ND	25.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212	D-09		
Residual Range Organics	174	50.0	"	**	"	"	H	"	20)		
Surr: 1-Chlorooctadecane	69.6 %	75-125							S-07		
Surr: Triacontane	97.4 %	50-150							207		

North Creek Analytical - Portland





Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9290 fax 509.924.9290 Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U08SL (P1G0210-06) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01	****
Diesel Range Organics Residual Range Organics	ND ND	25.0 50.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212	
Surr: 1-Chlorooctadecane Surr: Triacontane	71.0 % 92.2 %	75-125 50-150							S-07
01AMA9U09SL (P1G0210-07) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Diesel Range Organics Residual Range Organics	ND ND	25.0 50.0	mg/kg dry	1	AK102/103	07/12/01	07/16/01	1071212	···· - <u></u>
Surr: 1-Chlorooctadecane Surr: Triacontane	129 % 82.4 %	75-125 50-150							S-07

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400. Botheil, WA 98011-8244 425.420.9200
 fax 425.420.9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200
 fax 509.924.9200

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

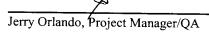
Reported:

07/31/01 13:05

Total Metals per EPA 6000/7000 Series Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U03SL (P1G0210-01) Soil				S	Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	2.08	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	32.6	1.00	"	10		"	07/21/01	"	
Cadmium	ND	0.500	"	**	11	**	07/21/01	**	
Chromium	7.32	0.500	"	**	**	11	"	**	
Lead	4.09	0.500	11	**	**	11	"	**	
Nickel	14.8	1.00	"	**	"	**	07/21/01	"	
Vanadium	165	2.50	"	1	n	**	11	"	
01AMA9U04SL (P1G0210-02) Soil				S	Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	2.28	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	24.0	1.00	"	10	**	"	07/21/01	"	
Cadmium	ND	0.500		**		**	07/21/01	**	
Chromium	7.41	0.500	11	**	"	Ħ	n	**	
Lead	3.10	0.500	11	**		Ħ	Ħ	*1	
Nickel	16.7	1.00	"	11	**	**	07/21/01	**	
Vanadium	113	2.50	"	1	II .	"	n	Ħ	
01AMA9U05SL (P1G0210-03) Soil				S	Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	1.82	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	30.5	1.00	"	10	11	**	07/21/01	"	
Cadmium	ND	0.500	**	11	"	#	07/21/01	u u	
Chromium	7.20	0.500	"	**	"	**	"	"	
Lead	2,44	0.500	**	11	"	**	**	**	
Nickel	10.5	1.00	**	**	"	**	07/21/01	u	
Vanadium	151	2.50	"	1	"	#	"	u .	

North Creek Analytical - Portland





Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425 420 9200 fax 425 420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 lax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Total Metals per EPA 6000/7000 Series Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U06SL (P1G0210-04) Soil				S	Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	3.38	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	379	1.00	"	10	**	11	07/21/01		
Cadmium	ND	0.500	u	17	**	**	07/21/01	**	
Chromium	3.32	0.500	u	"	**	**	n	***	
Lead	8.50	0.500	u u	"	11	11	11	**	
Nickel	6.58	1.00	***	**	11	"	07/21/01	**	
Vanadium	83.1	2.50	11	1	11	"	н	**	
01AMA9U07SL (P1G0210-05) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	5.30	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	104	1.00	"	10	,,	**	07/21/01	**	
Cadmium	ND	0.500	n	*1	**	"	07/21/01	**	
Chromium	7.65	0.500	**	**	**	11	"	"	
Lead	5.70	0.500	**	**	**	**	**	"	
Nickel	19.0	1.00	**	**	**	"	07/21/01		
Vanadium	146	2.50	н	1	**	11	Ħ	u	
01AMA9U08SL (P1G0210-06) Soil				5	Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Arsenic	2.01	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	27.4	1.00	"	10	**	n	07/21/01	**	
Cadmium	ND	0.500		"	"	11	07/21/01	**	
Chromium	12.3	0.500	"	11	п	**	*1	11	
Lead	2.75	0.500	"	"	n n	**	*1	••	
Nickel	13.5	1.00	11	"	"	Ħ	07/21/01	II.	
Vanadium	125	2.50	**	1	"	11	11	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420 9200
 fax 425 420 9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200
 fax 509.924.9290

Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Total Metals per EPA 6000/7000 Series Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Datah	Neter
01AMA9U09SL (P1G0210-07) Soil					Sampled: 07/0		ived: 07/06/	Batch	Notes
Arsenic	2.20	0.500	mg/kg dry	1	EPA 6020	07/20/01	07/21/01	1071499	
Barium	29.1	1.00	11	10	"	11	07/21/01	"	
Cadmium	ND	0.500	"	н		"	07/21/01	11	
Chromium	9.52	0.500	**	**	97	"	"	**	
Lead	2.59	0.500	**	**	11	**	"	**	
Nickel	13.1	1.00	**	**	**	**	07/21/01	"	
Vanadium	165	2.50	n .	1	**	**	#	11	



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polychlorinated Biphenyls per EPA Method 8082 North Creek Analytical - Portland

	1101	th Creek	Allalyti	Ca1 - 1 U	luanu				
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U03SL (P1G0210-01) Soil					Sampled: 07/0	03/01 Rece	ived: 07/06/	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01	07/18/01	1071259	
Aroclor 1221	ND	134	"	n n	"	"	"	"	
Aroclor 1232	ND	67.0	**	н	**	"		"	
Aroclor 1242	ND	67.0	**	**	"	**	n n	,,	
Aroclor 1248	ND	67.0	**	**		**	"	**	
Aroclor 1254	ND	67.0	**	**	**	11	n	**	
Aroclor 1260	ND	67.0	**	**	**	**	n	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	91.9 %	63-119							
Surr: Decachlorobiphenyl	109 %	52-131							
01AMA9U04SL (P1G0210-02) Soil				S	Sampled: 07/0	03/01 Recei	ived: 07/06/	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01	07/19/01	1071259	
Aroclor 1221	ND	134	" " " " " " " " " " " " " " " " " " " "	11	"	11	**	10/1239	
Aroclor 1232	ND	67.0	**	"	**	11	11	**	
Aroclor 1242	ND	67.0	Ħ	**	**	**	**		
Aroclor 1248	ND	67.0	n	**	**	11	"	**	
Aroclor 1254	ND	67.0	**	"	**	11	**	11	
Aroclor 1260	ND	67.0	91		**	**	u u	**	
Surr: 2,4,5,6-Tetrachloro-m-xylene	88.1 %	63-119							
Surr: Decachlorobiphenyl	76.3 %	52-131							
01AMA9U05SL (P1G0210-03) Soil				S	Sampled: 07/0	03/01 Recei	ived: 07/06/0	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01	07/18/01	1071259	
Aroclor 1221	ND	134	"	"	"	#	"	"	
Aroclor 1232	ND	67.0	11	н	11	**	**	**	
Aroclor 1242	ND	67.0	**	**	**	**	"	**	
Aroclor 1248	ND	67.0	**	"	**	**	"	**	
Aroclor 1254	ND	67.0	**	"	**	"	"	11	
Aroclor 1260	ND	67.0	**	n	**	**	"	**	
Surr: 2,4,5,6-Tetrachloro-m-xylene	88.6 %	63-119							
Surr: Decachlorobiphenyl	101 %	52-131							

North Creek Analytical - Portland



Seattle

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420.9200 fax 425.420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polychlorinated Biphenyls per EPA Method 8082 North Creek Analytical - Portland

	1101	ui Creek	Anaiyti	cai - Po	rtiand				
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U06SL (P1G0210-04) Soil			-		Sampled: 07/6	03/01 Rece	ived: 07/06/	01	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01			·
Aroclor 1221	ND	134	"	"	EFA 6062	0//14/01	07/19/01	1071259	
Aroclor 1232	ND	67.0	**	**	"	"	"	"	
Aroclor 1242	ND	67.0	"		**			"	
Aroclor 1248	ND	67.0	**	**	11	11	**	"	
Aroclor 1254	ND	67.0		**	**	,,	,,	,,	
Aroclor 1260	ND	67.0	u	**	n.	"	**	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	86.2 %	63-119							
Surr: Decachlorobiphenyl	76.5 %	52-131							
01AMA9U07SL (P1G0210-05) Soil	_			S	Sampled: 07/0	03/01 Rece	ived: 07/06/0) 1	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01	07/19/01		
Aroclor 1221	ND	134	"	"	tt	07/1 4 /01	07/19/01	1071259	
Aroclor 1232	ND	67.0	11	**		**	,,	"	
Aroclor 1242	ND	67.0	"	"	**	**	"		
Aroclor 1248	ND	67.0			**	.,	"		
Aroclor 1254	ND	67.0	**	**	**	**	**	,,	
Aroclor 1260	ND	67.0	11	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	94.4 %	63-119							
Surr: Decachlorobiphenyl	81.6 %	52-131							
01AMA9U08SL (P1G0210-06) Soil				S	ampled: 07/0	3/01 Recei	ved: 07/06/0)1	
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	07/14/01	07/18/01	1071259	
Aroclor 1221	ND	134	"	"	H 8002	"	07/18/01	10/1259	
Aroclor 1232	ND	67.0	"	11	u u	"	**	**	
Aroclor 1242	ND	67.0	11	**	**	"	11	**	
Aroclor 1248	ND	67.0	11	n	**	H		"	
Aroclor 1254	ND	67.0	"	"	u	11	**	**	
Aroclor 1260	ND	67.0	**	**	**	**	**	**	
Surr: 2,4,5,6-Tetrachloro-m-xylene	83.7 %	63-119							
Surr: Decachlorobiphenyl	101 %	52-131							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425-420-9200 fax 425-420-9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509-924-9200 fax 509-924-9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503-906-9200 fax 503-906-9210 20222 Empire Avenue Suite E 1, Breek ON 97204-534

Spokane

Portland

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polychlorinated Biphenyls per EPA Method 8082 North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U09SL (P1G0210-07) Soil				S	Sampled: 07/0	13/01 Page	ived: 07/06/		710100
Aroclor 1016	ND	67.0	3. m/l. m. d.				ived: 07/06/	01	
Aroclor 1221	ND		ug/kg dry "	1	EPA 8082	07/14/01	07/18/01	1071259	
Aroclor 1232		134		**	n	**	11	11	
Aroclor 1242	ND	67.0	"	11	* 1	**	*1	u	
	ND	67.0	**	**	"		"	"	
Aroclor 1248	ND	67.0	**	**	"	**	"	.,	
Aroclor 1254	ND	67.0	**	"	**	**			
Aroclor 1260	ND	67.0	**	"	" n	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	83.6 %	63-119						11	
Surr: Decachlorobiphenyl	100 %	52-131							



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420 9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 Seattle

Spokane

509.924.9200 fax 509.924.9290 Portland

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U03SL (P1G0210-01) Soil				9	Sampled: 07/0	3/01 Recei	ived: 07/06/0	n1	
Acetone	ND	3080	ug/kg dry	1	EPA 8260B	07/16/01			
Benzene	ND	123	"	1 11	EFA 8200B	0//10/01	07/17/01	1071301	
Bromobenzene	ND	123		**	,,	,,	"	,,	
Bromochloromethane	ND	123		**	H.	"		,,	
Bromodichloromethane	ND	123	H.	**	**	**	"	**	
Bromoform	ND	123	11		11	"	,,		
Bromomethane	ND	616		n	"	"	,,	"	
2-Butanone	ND	1230	11	**	"	11	"	**	
n-Butylbenzene	. ND	616	"	**	,,		"	"	
sec-Butylbenzene	ND	123	**	11	"		"	"	
tert-Butylbenzene	ND	123	11	"	"	"	"	"	
Carbon disulfide	ND	1230	"	"		"	,,		
Carbon tetrachloride	ND	1230	11	,,	**	"	"	"	
Chlorobenzene	ND	123	**	"	**	,,	**	"	
Chloroethane	ND	123	"	"	"	,,	,,		
Chloroform	ND	123	"	"	"	,,	**	,,	
Chloromethane	ND	616	11	n	"	**	**	"	
2-Chlorotoluene	ND	123	**	11	,,	,,	,,	"	
4-Chlorotoluene	ND	123	11		"		,,	"	
1,2-Dibromo-3-chloropropane	ND	616	"	"	**	"	n.	"	
Dibromochloromethane	ND	123	"	"	**	"	**	"	
1,2-Dibromoethane	ND	123	**	**	,,	**	**	н	
Dibromomethane	ND	123	**	,,			"	"	
1,2-Dichlorobenzene	ND	123	**	,,	,,		"	"	
1,3-Dichlorobenzene	ND	123	,,	"	**	,,	"	"	
1,4-Dichlorobenzene	ND	123	"	Ħ	**	"	"		
Dichlorodifluoromethane	ND	616	tt	"	"	"	"	"	
1,1-Dichloroethane	ND	123	**	,,		,,	**	"	
1,2-Dichloroethane	ND	123	**	11	"		**		
1,1-Dichloroethene	ND	123	0	**	**	**		"	
cis-1,2-Dichloroethene	ND	123	**	**	**	**	"	"	
trans-1,2-Dichloroethene	ND	123	**				"	"	
1,2-Dichloropropane	ND	123	**	11	Pf .	"	"		
1,3-Dichloropropane	ND ND	123	**	"	,,	"	"	"	
2,2-Dichloropropane	ND ND	123	,,	**		"	"	"	
1,1-Dichloropropene	ND ND	123	11	,,	11	" "	"	**	
cis-1,3-Dichloropropene	ND	123	tt		"	"	"	"	
rans-1,3-Dichloropropene	ND	123	"	**	"	11	"	"	
Ethylbenzene	ND	123	"	11	"	"	,,	**	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

North Creek Analytical, Inc. **Environmental Laboratory Network**



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420 9200 fax 425.420.9210 Seattle

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U03SL (P1G0210-01) Soil				5	Sampled: 07/0	03/01 Recei	ived: 07/06/0)1	
Hexachlorobutadiene	ND	246	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
2-Hexanone	ND	1230	"		"	U 10/01	#	10/1301	
Isopropylbenzene	ND	246	"		**	**	"	**	
p-Isopropyltoluene	ND	246	"	**	**	**	"	,,	
4-Methyl-2-pentanone	ND	616	"	**	**	**	11	.,	
Methyl tert-butyl ether	ND	123	H	**	11	*1	**	**	
Methylene chloride	ND	616	tt	**		"	"	**	
Naphthalene	ND	246	**	**	"	**	,,	11	
n-Propylbenzene	ND	. 123		**	**	***	"	**	
Styrene	ND	123	0	**	**	11	11	"	
1,1,1,2-Tetrachloroethane	ND	123	11	**	**		**	"	
1,1,2,2-Tetrachloroethane	ND	123	**	"	"		"	**	
Tetrachloroethene	ND	123	**		**	"	"	"	
Toluene	ND	123	n .	11	**	**	11	"	
1,2,3-Trichlorobenzene	ND	123	11	11	**	"	**	**	
1,2,4-Trichlorobenzene	ND	123	"	***	"	11	**	**	
1,1,1-Trichloroethane	ND	123	"	"		"	**	**	
1,1,2-Trichloroethane	ND	123	11	"	**	"	**	,,	
Trichloroethene	ND	123	11	"	**	•		"	
Trichlorofluoromethane	ND	123	**	11	**	**	tt	"	
1,2,3-Trichloropropane	ND	123	**	**	u	ıı,	**	11	
1,2,4-Trimethylbenzene	ND	123	"	**	11	"		**	
1,3,5-Trimethylbenzene	ND	123	"	**	"	11	11	"	
Vinyl chloride	ND	123	**	**	**	"	**	"	
o-Xylene	ND	123	"		"		**	**	
m,p-Xylene	ND	246	**		**	**	"	n	
Surr: 4-BFB	97.4 %	70-130				<u></u>			
Surr: 1,2-DCA-d4	80.8 %	70-130							
Surr: Dibromofluoromethane	85.3 %	70-130							
Surr: Toluene-d8	97.0 %	70-130							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



11720 North Creek Pkwy N, Suite 406, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509 924.9200 fax 509.924.9290 Seattle

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 Portland

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U04SL (P1G0210-02) Soil					Sampled: 07/0				11000
Acetone	ND	2500	ug/kg dry				ived: 07/06/		
Benzene	ND	100	ug/kg ury	1	EPA 8260B	07/16/01	07/17/01	1071301	
Bromobenzene	ND	100	**	"	"	***	11	**	
Bromochloromethane	ND	100	,,	"	"	"	"	**	
Bromodichloromethane	ND	100	**	**	" "	"	"	**	
Bromoform	ND	100	u.	11	"	"	"	#	
Bromomethane	ND	500	"	11	,,	**	· ·	"	
-Butanone	ND	1000	**	"	"		"	11	
-Butylbenzene	ND	500	"	,,	"	**	"	**	
ec-Butylbenzene	ND	100	**	"	"	"	**	**	
ert-Butylbenzene	ND	100	"	"		11	"	н	
Carbon disulfide	ND	1000	**	"	"	**	**	"	
Carbon tetrachloride	ND ND	1000	"	**	"	II .	"	"	
Chlorobenzene	ND	100	**	"	"	**	"	**	
Chloroethane	NĐ	100	,,	,,	"	**	**	u .	
Chloroform	ND ND	100		"	,,	Ħ	"	"	
Chloromethane	ND	500	11	"	"	"	**	"	
-Chlorotoluene	ND	100	**	**		17	u u	**	
-Chlorotoluene	ND	100		"	"	**	**	**	
,2-Dibromo-3-chloropropane	ND ND	-	"	"	**	"	"		
Pibromochloromethane	ND ND	500	**	"		11	"	n	
,2-Dibromoethane	ND ND	100	"	**	"	11	"	**	
Dibromoethane	ND ND	100	"	"		"	"	**	
,2-Dichlorobenzene	ND	100	"	**	"	**	n	11	
,3-Dichlorobenzene	ND ND	100 100	,,	"	"	"	"	**	
,4-Dichlorobenzene	ND ND	100	"	,,	"	"		"	
Dichlorodifluoromethane	ND	500		**		"	"	"	
,1-Dichloroethane	ND	100	11	"		"	"	"	
,2-Dichloroethane	ND	100	tr	,,		" "	"	"	
,1-Dichloroethene	ND	100	**	**	"	"	"	"	
is-1,2-Dichloroethene	ND		н	,,	"	"	"		
ans-1,2-Dichloroethene	ND ND	100 100	"	"	"	"	"	"	
,2-Dichloropropane	ND ND		"		"	"		11	
,3-Dichloropropane		100	"	"			**	"	
,2-Dichloropropane	ND ND	100	"	"	"	"	"	**	
,1-Dichloropropene	ND ND	100	"	"	"		II	**	
s-1,3-Dichloropropene		100	"	"			11	**	
ans-1,3-Dichloropropene	ND ND	100	"		"	**	***	"	
thylbenzene	ND ND	100 100	"	"	"	"	"	"	

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Botheil, WA 98011-8244 425.420 9200 | fax 425.420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.306.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U04SL (P1G0210-02) Soil					Sampled: 07/0	3/01 Recei	ived: 07/06/	01	
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
2-Hexanone	ND	1000	"	"	"	11	#	"	
Isopropylbenzene	ND	200	0	11	"	11	**	**	
p-lsopropyltoluene	ND	200	**	**	**	н	**	**	
4-Methyl-2-pentanone	ND	500	11	11	**	,,	**	**	
Methyl tert-butyl ether	ND	100	**	"	**	"	**	**	
Methylene chloride	ND	500	**	"	*1	**	11	**	
Naphthalene	ND	200	•	11	**	**	n	"	
n-Propylbenzene	ND	100		n		**	11	**	
Styrene	ND	100		**		**	**	**	
1,1,1,2-Tetrachloroethane	ND	100	0	**	"	"	**	**	
1,1,2,2-Tetrachloroethane	ND	100	11	"	"	u.		**	
Tetrachloroethene	ND	100	**	***	"	**	"	,,	
Toluene	120	100	#	u	**	"	"	**	
1,2,3-Trichlorobenzene	ND	100	"		**	#1	"		
1,2,4-Trichlorobenzene	ND	100	"		"	**	"	11	
1,1,1-Trichloroethane	ND	100		u	**	*1	n	11	
1,1,2-Trichloroethane	ND	100	**	**	***	"	Ħ	**	
Trichloroethene	ND	100	**	**	**		"	**	
Trichlorofluoromethane	ND	100	Ħ	11	**	,,	11	**	
1,2,3-Trichloropropane	ND	100		"	"	**	"	.,	
1,2,4-Trimethylbenzene	ND	100	n	"	**	**	"		
1,3,5-Trimethylbenzene	ND	100	"	**		"	11	11	
Vinyl chloride	ND	100	n	**	11	"	**	11	
o-Xylene	ND	100	**	**	**	,,	**	11	
m,p-Xylene	ND	200	11	**	**		"	11	
Surr: 4-BFB	98.7 %	70-130							
Surr: 1,2-DCA-d4	79.7 %	70-130							
Surr: Dibromofluoromethane	84.3 %	70-130							
Surr: Toluene-d8	98.3 %	70-130							

North Creek Analytical - Portland



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425 420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906 9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588 Seattle

Spokane

Portland

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U05SL (P1G0210-03) Soil					Sampled: 07/0	3/01 Recei	ved: 07/06/0)1	
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	07/16/01			
Benzene	ND	100	" " " " " " " " " " " " " " " " " " " "	,	U 4 8200B	07/10/01	07/17/01	1071301	
Bromobenzene	ND	100		**	**	"	,,	,,	
Bromochloromethane	ND	100	**	11	"	,,	**	"	
Bromodichloromethane	ND	100		**	**	**		,,	
Bromoform	ND	100	11	**	"	*1	**		
Bromomethane	ND	500		**	"	"	,,	"	
2-Butanone	ND	1000	Ħ	**	"	"	**	,,	
n-Butylbenzene	ND	500	"	"	11	**		"	
sec-Butylbenzene	ND	100	"	11	**	**	**	"	
tert-Butylbenzene	ND	100	"	**	,,		"	"	
Carbon disulfide	ND	1000	"	**	**	**	"	"	
Carbon tetrachloride	ND	100	**	"	**	"	"	"	
Chlorobenzene	ND	100	**	**			 H	"	
Chloroethane	ND	100	**	**	11	#	"	"	
Chloroform	ND	100	"	"	**	"	**	"	
Chloromethane	ND	500	"	**		"	"	**	
2-Chlorotoluene	ND	100	**	**	**	**	n	,,	
4-Chlorotoluene	ND	100	11		**	11	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"		**	11	**	11	
Dibromochloromethane	ND	100	H		"	"	,	11	
1,2-Dibromoethane	ND	100	**	**	**	"		**	
Dibromomethane	ND	100	**	**	**	n	"	"	
1,2-Dichlorobenzene	ND	100	**	**	**	n	"	**	
1,3-Dichlorobenzene	ND	100	**	**	**	"	"	**	
1,4-Dichlorobenzene	ND	100	**	**	**	"	"	**	
Dichlorodifluoromethane	ND	500	H	**	**	"	"	**	
1,1-Dichloroethane	ND	100	0	**	**	n	"	n	
1,2-Dichloroethane	ND	100	0	**	**	"	"	**	
1,1-Dichloroethene	ND	100		**	**	"	**	*1	
cis-1,2-Dichloroethene	ND	100	11	**	**	"	**	"	
trans-1,2-Dichloroethene	ND	100	11	**	**	*1	**		
1,2-Dichloropropane	ND	100	11	**	"	"	"	"	
1,3-Dichloropropane	ND	100	**	**	"	"	"	"	
2,2-Dichloropropane	ND	100	n	**	tr	**		**	
1,1-Dichloropropene	ND	100	"		**	"	11	"	
cis-1,3-Dichloropropene	ND	100	**	11	"	,,	**	"	
trans-1,3-Dichloropropene	ND	100	11	**	"	**		**	
Ethylbenzene	ND	100	**	"	n	**	11	n	

North Creek Analytical - Portland



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210 Seattle

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509 924.9200 fax 509.924.9290 Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503 906.9200 fax 503.906 9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

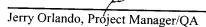
Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U05SL (P1G0210-03) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/0)1	·
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
2-Hexanone	ND	1000	"	"	"	#	"	10/1301	
lsopropylbenzene	ND	200	**	"		"		**	
p-Isopropyltoluene	ND	200	"	"	**	"	"	#1	
4-Methyl-2-pentanone	ND	500	"	**	**	"	**	"	
Methyl tert-butyl ether	ND	100	"	**	11	"	"	,,	
Methylene chloride	ND	500	**	"		**		#	
Naphthalene	ND	200	**	**	**	11	"	**	
n-Propylbenzene	ND	100	**	**	,,	ii	,,	ft .	
Styrene	ND	100	**	**	"	n .	. "	"	
1,1,1,2-Tetrachloroethane	ND	100	**	"	"	11	"	**	
1,1,2,2-Tetrachloroethane	ND	100	"	"	**	11	"		
Tetrachloroethene	ND	100	"	**	"	**	**	11	
Toluene	ND	100	**	"		11	**	**	
1,2,3-Trichlorobenzene	ND	100	11	**	**	"	**	11	
1,2,4-Trichlorobenzene	ND	100	**	Ħ	**	"	H	**	
1,1,1-Trichloroethane	ND	100	**	**	**	**	,,	Ħ	
1,1,2-Trichloroethane	ND	100	**	11	**	**	n.	**	
Trichloroethene	ND	100	"		**	u.	"	H	
Trichlorofluoromethane	ND	100			**	"	**	"	
1,2,3-Trichloropropane	ND	100	11	11	**	"	**	n.	
1,2,4-Trimethylbenzene	ND	100	u	**		**	**	"	
1,3,5-Trimethylbenzene	ND	100	11	**	u	**		"	
Vinyl chloride	ND	100	**	n	u	"	•	**	
o-Xylene	ND	100	**	"	"	"	"	11	
m,p-Xylene	ND	200	**	**	11	"	"	*11	
Surr: 4-BFB	97.8 %	70-130							
Surr: 1,2-DCA-d4	81.0 %	70-130							
Surr: Dibromofluoromethane	83.6 %	70-130							
Surr: Toluene-d8	95.7 %	70-130							

North Creek Analytical - Portland





11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 9405 SW Nimbus Avenue, Beaverton, 0R 97008-7132 Seattle

Spokane

Portland

503.906 9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U06SL (P1G0210-04) Soil				,	Sampled: 07/0	3/01 Recei	ived: 07/06/	01	
Acetone	ND	2260	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
Benzene	ND	90.2	"	"	"	#	07/17/01	"	
Bromobenzene	NĐ	90.2		"	**	*11	0	,,	
Bromochloromethane	ND	90.2	0	11	**	"	,,	"	
Bromodichloromethane	ND	90.2	n	"	**		11	"	
Bromoform	ND	90.2	**	**		**	*1	**	
Bromomethane	ND	451	**	**	tt	"	Ħ	"	
2-Butanone	ND	902	"		**	**	"	11	
n-Butylbenzene	ND	451	"		*1	11	"	**	
sec-Butylbenzene	ND	90.2	**	**	"	"	**		
tert-Butylbenzene	ND	90.2	**	"		**	"		
Carbon disulfide	ND	902	11	**	**		11		
Carbon tetrachloride	ND	90.2	"		,,	"	,,		
Chlorobenzene	ND	90.2		"	"	11	11	,,	
Chloroethane	ND	90.2	**	**	"	"	"		
Chloroform	ND	90.2	**	**	11	**	*1		
Chloromethane	ND	451	**	**	11	,,	"		
2-Chlorotoluene	ND	90.2	11	"	**	"	**	**	
4-Chlorotoluene	ND	90.2	n.	,,	11	**	**	**	
1,2-Dibromo-3-chloropropane	ND	451	n	11		**	**	"	
Dibromochloromethane	ND	90.2	**	**	11	**	,,	"	
1,2-Dibromoethane	ND	90.2	**	**	"				
Dibromomethane	ND	90.2	**	11	"	,,			
1,2-Dichlorobenzene	ND	90.2	"		**	"	**	"	
1,3-Dichlorobenzene	ND	90.2	"	.,	,,	,,	,,	"	
1,4-Dichlorobenzene	ND	90.2	**	,,	,,	**		**	
Dichlorodifluoromethane	ND ND	451	**	11		**	,,	"	
1,1-Dichloroethane	ND	90.2	"	**	**	**	,,	"	
1,2-Dichloroethane	ND	90.2	**	**	"		"		
1,1-Dichloroethene	ND	90.2	**	"	"	н	"	"	
cis-1,2-Dichloroethene	NĐ	90.2		"	"	11	11	"	
trans-1,2-Dichloroethene	ND	90.2	11	,,	"	**	**	,,	
1,2-Dichloropropane	ND ND	90.2	**	11	**			"	
1,3-Dichloropropane	ND ND	90.2			"	"	"	"	
2,2-Dichloropropane	ND ND	90.2	"	"	"	,,		"	
1,1-Dichloropropene	ND ND	90.2	"	"	"	,,	**		
cis-1,3-Dichloropropene	ND ND	90.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND ND	90.2	#	" "	"	"		"	
							"	**	
Ethylbenzene	ND	90.2	**	"	"	**	"	**	

North Creek Analytical - Portland



 Seattle
 11770 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924,9200
 fax 509,924,9200

 700,000,000
 fax 509,924,9200

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U06SL (P1G0210-04) Soil					Sampled: 07/0	3/01 Recei	ived: 07/06/	01	
Hexachlorobutadiene	ND	180	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
2-Hexanone	ND	902	"	11	"	110/01	0//1//01	10/1301	
sopropylbenzene	ND	180	**	**		"	"	,,	
o-Isopropyltoluene	ND	180		**	**	•	"	**	
I-Methyl-2-pentanone	ND	451	**	11	"	**	"	**	
Methyl tert-butyl ether	ND	90.2	"	**	"	"	"	**	
Methylene chloride	ND	451	н	u	**	**	**	11	
Naphthalene	ND	180	"	**	**	**	"	Ħ	
a-Propylbenzene	ND	90.2	"	**	**	**	,,	**	
Styrene	ND	90.2	"	"	11	**	11	11	
,1,1,2-Tetrachloroethane	ND	90.2	**	"			**	,,	
,1,2,2-Tetrachloroethane	ND	90.2	u u	"	"	"	11	,,	
etrachloroethene	ND	90.2	n		**	11		,,	
oluene	ND	90.2	**		**	"	"	**	
,2,3-Trichlorobenzene	ND	90.2	"			n	**	11	
,2,4-Trichlorobenzene	ND	90.2	**	**	**		,,	11	
,1,1-Trichloroethane	ND	90.2		"	"		"	11	
,1,2-Trichloroethane	ND	90.2	**	11	**	11	"	**	
richloroethene	ND	90.2	**	"	"	**	**		
richlorofluoromethane	ND	90.2	**	"	"	11	**	"	
,2,3-Trichloropropane	ND	90.2	**	"	**	*1	**	,,	
,2,4-Trimethylbenzene	ND	90.2	"	"	11	**	**	**	
,3,5-Trimethylbenzene	ND	90.2		n	**	11	**	**	
inyl chloride	ND	90.2	**	**	"			н	
-Xylene	ND	90.2	"	**	"	11		"	
n,p-Xylene	ND	180	"	Ħ	11	11		"	
urr: 4-BFB	98.1 %	70-130							
Surr: 1,2-DCA-d4	82.2 %	70-130							
urr: Dibromofluoromethane	84.6 %	70-130							
urr: Toluene-d8	97.6 %	70-130							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425-420 9200 fax 425-420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924-9200 fax 509.924-9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 2032 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541-283.910, fax 641-283.9116. Seattle

Spokane

Portland

541.383 9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

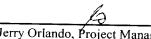
Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U07SL (P1G0210-05) Soil					Sampled: 07/0		ived: 07/06/0		11010
Acetone	ND	1470	ug/kg dry						 -
Benzene	ND	58.7	ug/kg ary	1	EPA 8260B	07/16/01	07/17/01	1071301	
Bromobenzene	ND	58.7	**	,,	"	n	"	**	
Bromochloromethane	ND	58.7	**	"	"	**	"	II .	
Bromodichloromethane	ND	58.7 58.7		"	"	"	"	11	
Bromoform	ND	58.7 58.7	#	"	"	"	"	"	
Bromomethane	ND	293	**	**	"	"	11	**	
2-Butanone	ND	587	**	**	"		H	Ħ	
n-Butylbenzene	ND	293	"	,,	"	**	"	"	
sec-Butylbenzene	ND	58.7	"		"	"	"	11	
ert-Butylbenzene	ND	58.7 58.7	"	,,	"	"	"	"	
Carbon disulfide	ND	58.7 587	*1				"	11	
Carbon tetrachloride	ND	58.7	"	**	"	**	"	n	
Chlorobenzene	ND	58.7 58.7	,,	" "	"	**	"	"	
Chloroethane	ND	58.7	"	"	"	"	**	**	
Chloroform	ND	58.7	,,	"	,,	**	*1	"	
Chloromethane	ND	293	"	"	"	"	"	11	
2-Chlorotoluene	ND ND	58.7	"	**	"	"	"	**	
4-Chlorotoluene	ND	58.7	,,	"	**	"	"	"	
,2-Dibromo-3-chloropropane	ND	293		"	11	,,	"	"	
Dibromochloromethane	ND	58.7	,,	"	"	,,	"	"	
,2-Dibromoethane	ND	58.7	11	11			"	" "	
Dibromomethane	ND ND	58.7	11	"	n.	"	"	"	
,2-Dichlorobenzene	ND ND	58.7 58.7	**	**	"	**	"	"	
,3-Dichlorobenzene	ND	58.7	,,	•		**	"	"	
,4-Dichlorobenzene	ND	58.7	**	**	**	**	"	,,	
Dichlorodifluoromethane	ND	293	**	"	**	**		,,	
,1-Dichloroethane	ND	58.7	11	**	**	**		,,	
,2-Dichloroethane	ND	58.7		**	17	**	"	,,	
,1-Dichloroethene	ND	58.7	11	"	**	"	"	"	
is-1,2-Dichloroethene	ND	58.7	**	"	"	"	**	"	
rans-1,2-Dichloroethene	ND	58.7	*1	**	**	"	11	**	
,2-Dichloropropane	ND	58.7	"	**	**	#	"	,,	
,3-Dichloropropane	ND	58.7	"	**	Ħ	"	" "	"	
2,2-Dichloropropane	ND	58.7	n	"	0	"	"	**	
,1-Dichloropropene	ND ND	58.7	**		"	" "	"	**	
is-1,3-Dichloropropene	ND	58.7	0	**	11	,,	"	**	
rans-1,3-Dichloropropene	ND	58.7	0	,,	11		"	"	
Ethylbenzene	ND ND	58.7	tt			"	"	"	

North Creek Analytical - Portland





11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210 Spokane

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U07SL (P1G0210-05) Soil		_			Sampled: 07/0	3/01 Recei	ived: 07/06/0	0.1	
Hexachlorobutadiene	ND	117	ug/kg dry	1	EPA 8260B	07/16/01			
2-Hexanone	ND	587	" " " " " " " " " " " " " " " " " " " "	11	# #	U//10/U1	07/17/01	1071301	
Isopropylbenzene	ND	117		*1	**	11	"	,,	
p-Isopropyltoluene	ND	117	**	11	**	11	"		
4-Methyl-2-pentanone	ND	293	m .	*1	11	"	"	**	
Methyl tert-butyl ether	ND	58.7	Ħ	**	11	"	,,	"	
Methylene chloride	ND	293	n	**	"	"	"	**	
Naphthalene	ND	117	n	"	,,	**	,,	"	
n-Propylbenzene	ND	58.7	**	"	,,	,,	"	"	
Styrene	ND	58.7	"	**	"	"	11	"	
1,1,1,2-Tetrachloroethane	ND	58.7	"	11	,,	"	"	"	
1,1,2,2-Tetrachloroethane	ND	58.7	**		**	**	"	"	
Tetrachloroethene	ND	58.7	**	"	"	**	"	"	
Toluene	ND	58.7	**	11	,,	"	,,	"	
1,2,3-Trichlorobenzene	ND	58.7	"	11	**	**		"	
1,2,4-Trichlorobenzene	ND	58.7	**	**	**	H	"	"	
1,1,1-Trichloroethane	ND	58.7	,,	"	*1	**	,,	"	
1,1,2-Trichloroethane	ND	58.7	,,	н	"	"	"	"	
Trichloroethene	ND	58.7		**	"		**		
Trichlorofluoromethane	ND ND	58.7	"	,,	"	"	"	"	
1,2,3-Trichloropropane	ND	58.7	"	,,	"	"	"	**	
1,2,4-Trimethylbenzene	ND	58.7	**	"	,,	"	"	"	
1,3,5-Trimethylbenzene	ND	58.7	**	"	,,	**		"	
Vinyl chloride	ND	58.7	**	**	**	**		"	
o-Xylene	ND	58.7	**	**	**	"	11	"	
m,p-Xylene	ND	117	**	11	"	**	**	"	
Surr: 4-BFB	100 %	70-130							
Surr: 1,2-DCA-d4	81.8 %	70-130							
Surr: Dibromofluoromethane	84.1 %	70-130							
Surr: Toluene-d8	97.7 %	70-130							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400 Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

 Spokane
 503 924 9200 fax 509 924 9290

 Portland
 9405 SW Nimbus Avenue, Beaverton, 0R 97008-7132

 Bend
 20332 Empire Avenue, Suite F-1, Bend, 0R 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U08SL (P1G0210-06) Soil					Sampled: 07/0	3/01 Recei	ived: 07/06/0		
Acetone	ND	2040	ug/kg dry	1	EPA 8260B	07/16/01			
Benzene	ND	81.8	"	, ,	H 6200B	07/16/01	07/17/01	1071301	
Bromobenzene	ND	81.8	11	tt	"	"		"	
Bromochloromethane	ND	81.8	"	**	n	"	"	"	
Bromodichloromethane	ND	81.8		"	**		"		
Bromoform	ND	81.8	"	**	,,	,,	"	"	
Bromomethane	ND	409	"	**	11	,,	"	"	
2-Butanone	ND	818	H	**	11	"	"	"	
n-Butylbenzene	ND	409	11	"	"	**	"	"	
sec-Butylbenzene	ND	81.8	11	n	,,	**		"	
tert-Butylbenzene	ND	81.8	"	"	**	"	**	"	
Carbon disulfide	ND	818	**	**	"	**	"	"	
Carbon tetrachloride	ND	81.8	"	11	**	,,	"	"	
Chlorobenzene	ND	81.8	"	"	**		**		
Chloroethane	ND	81.8	**	"	"	**			
Chloroform	ND	81.8	**	"	"	**		"	
Chloromethane	ND	409	**	**	11	**	n	**	
2-Chlorotoluene	ND	81.8	**	11	**	,,	n	,,	
4-Chlorotoluene	ND	81.8	**	**	**		er .	,,	
1,2-Dibromo-3-chloropropane	ND	409	"	"	**	.,	**	"	
Dibromochloromethane	ND	81.8	**	"	**	11	**		
1,2-Dibromoethane	ND	81.8	"	"	"	11	u		
Dibromomethane	ND	81.8	**	**	,,	Ħ	,,	"	
1,2-Dichlorobenzene	ND	81.8	**	**	,,	**		"	
1,3-Dichlorobenzene	ND	81.8	**	**	"	**	11		
1,4-Dichlorobenzene	ND	81.8	**	"	,,	**	,,	,,	
Dichlorodifluoromethane	ND	409	**	**	"	**		,,	
1,1-Dichloroethane	ND	81.8	**	**		**		"	
1,2-Dichloroethane	ND	81.8	n	"	**	11		,,	
1.1-Dichloroethene	ND	81.8	,,	"	11	"		,,	
cis-1,2-Dichloroethene	ND	81.8		,,	**	**	0	,,	
trans-1,2-Dichloroethene	ND	81.8	11		**	,,	11	**	
1,2-Dichloropropane	ND	81.8	11	11	,,	#	"		
1,3-Dichloropropane	ND	81.8	**	**	IF.	11	"	**	
2,2-Dichloropropane	ND	81.8	"	*1	**	,,	,,	**	
1,1-Dichloropropene	ND	81.8		"	**	"	" "	**	
cis-1,3-Dichloropropene	ND	81.8	**	#		"	"	"	
trans-1,3-Dichloropropene	ND ND	81.8	"	11		,,	"	"	
Ethylbenzene	ND	81.8	**	,,	**	,,	,,	,,	

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

East 11115 Montgomery, Suite B. Spokane, WA 99206-4776 Spokane

509.924.9200 fax 509.924.9290

509 924 9200 1ax 509 924 9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503,906 9200 fax 503,906 9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541 383 9310 fax 541 382,7588 Portland

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U08SL (P1G0210-06) Soil					Sampled: 07/0	3/01 Recei	ived: 07/06/	n1	
Hexachlorobutadiene	ND	164	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01		
2-Hexanone	ND	818	"	"	"	U//10/UI	0//1//01	1071301	
Isopropylbenzene	ND	164	**	"	**	, 11	**	**	
p-Isopropyltoluene	ND	164	**	11	11	n	11		
4-Methyl-2-pentanone	ND	409	**	**	**	"	"	"	
Methyl tert-butyl ether	ND	81.8	n			"	#	"	
Methylene chloride	ND	409	"	**	**	11	"	"	
Naphthalene	ND	164	**	**	**	"	"	"	
n-Propylbenzene	ND	81.8	н	**	"		tt .	11	
Styrene	ND	81.8	11	**	n	"	"	"	
1,1,1,2-Tetrachloroethane	ND	81.8	Ħ	**	"	**	"	"	
1,1,2,2-Tetrachloroethane	ND	81.8	**	n	•		,,	"	
Tetrachloroethene	ND	81.8	**	**	**	,,	11	"	
Toluene	83.1	81.8	**	ıı .	"	"	"	"	R-09
1,2,3-Trichlorobenzene	ND	81.8		**	"	**	,,	**	K-09
1,2,4-Trichlorobenzene	ND	81.8	**	**	"	**	**	,,	
1,1,1-Trichloroethane	ND	81.8	**	"	"		**	,,	
1,1,2-Trichloroethane	ND	81.8	"	"	"	n.	"	**	
Trichloroethene	ND	81.8	"	"	"	**	11	11	
Trichlorofluoromethane	ND	81.8	Ħ	"	"	**	**	11	
1,2,3-Trichloropropane	ND	81.8	**	"	11	"	tt	"	
1,2,4-Trimethylbenzene	ND	81.8	**	н	**		11	11	
1,3,5-Trimethylbenzene	ND	81.8	**	"	**	**	**	**	
Vinyl chloride	ND	81.8	"	**	**	**	n	**	
o-Xylene	ND	81.8	**	**	,,	n	**	**	
n,p-Xylene	ND	164	Ħ	"	"	"	**	11	
Surr: 4-BFB	98.9 %	70-130			· · · · · · · · · · · · · · · · · · ·				
Surr: 1,2-DCA-d4	81.1 %	70-130							
Surr: Dibromofluoromethane	84.6 %	70-130							
Surr: Toluene-d8	95.4 %	70-130							

North Creek Analytical - Portland





Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

Spokane

425 420.9200 fax 425.420.9210
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509 924.9200 fax 509.924.9290
9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210 Portland

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U09SL (P1G0210-07) Soil			-	9	Sampled: 07/0		ived: 07/06/		
Acetone	ND	3020	ug/kg dry	1					
Benzene	ND	121	ug/kg uly	1 "	EPA 8260B	07/16/01	07/17/01	1071301	
Bromobenzene	ND	121	**	,,	**	"	**	"	
Bromochloromethane	ND	121		17	"	"		Ħ	
Bromodichloromethane	ND	121	**	**	**		"	H	
Bromoform	ND	121	,,			"	"	n	
Bromomethane	ND	603	"	,,	**	"	"	11	
2-Butanone	ND	1210	**	,,	"	"	#	"	
n-Butylbenzene	ND	603	u u	11	,,	"		**	
sec-Butylbenzene	ND	121	"	**	"	"	11	**	
ert-Butylbenzene	ND	121	**	.,	"	"		11	
Carbon disulfide	ND	1210	"	11	**	" "		**	
Carbon tetrachloride	ND	1210	17	11		"	"	11	
Chlorobenzene	ND	121	"	"	"	,,	"	11	
Chloroethane	ND	121	**	,,	"		**	**	
Chloroform	ND	121	"	"	"	"	"	**	
Chloromethane	ND	603	,,	11	,,	"	***	"	
2-Chlorotoluene	ND	121	**	"	"	"	"	11	
l-Chlorotoluene	ND	121	**	"	" "	"	"	**	
,2-Dibromo-3-chloropropane	ND ND	603	**	"	"	"	"	"	
Dibromochloromethane	ND	121	H	**	,,	" "	"	"	
,2-Dibromoethane	ND	121	**		"	"	,,	"	
Dibromomethane	ND	121	**	,,	11	"	"		
,2-Dichlorobenzene	ND ND	121	11	"	11	"		**	
,3-Dichlorobenzene	ND ND	121		**	**	"	"	"	
,4-Dichlorobenzene	ND ND	121		,,	11	"	"	"	
Dichlorodifluoromethane	ND	603	**	"	"	"	"	#	
,1-Dichloroethane	ND	121	tt.	**	**	,,	"	"	
,2-Dichloroethane	ND ND	121	tt .	"	**	"	"	"	
,1-Dichloroethene	ND	121	**	,,	,,	"	" "	"	
is-1,2-Dichloroethene	ND	121	**	,,		" "	"		
rans-1,2-Dichloroethene	ND	121		**	#	"	"	"	
,2-Dichloropropane	ND	121	"	.,	**	"	"		
,3-Dichloropropane	ND ND	121	"	"	"	"	"	"	
,2-Dichloropropane	ND ND	121	 H	11	"	"			
,1-Dichloropropene	ND ND		"		H		"	"	
is-1,3-Dichloropropene	ND ND	121	" "	"	"	"	"	"	
rans-1,3-Dichloropropene	ND ND	121	"	"		"	11	"	
thylbenzene	ND ND	121 121	"	"	11	"	**	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc. **Environmental Laboratory Network**



 Seattle
 11720 North Creck Pkwy N, Suite 400, Bothell, WA 98011-8244

 425,420 9200
 fax 425,420 9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924 9200
 fax 509,924,9290

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701 5711

541.383.9310 fax 541.382 7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Note
01AMA9U09SL (P1G0210-07) Soil					Sampled: 07/0	3/01 Recei	ived: 07/06/0	n1	
Hexachlorobutadiene	ND	241	ug/kg dry	1	EPA 8260B	07/16/01	07/17/01	1071301	
2-Hexanone	ND	1210	11		" "	"	07/17/01	10/1301	
Isopropylbenzene	ND	241	u u	**	**	11	"	11	
p-Isopropyltoluene	ND	241	"	**	**	**	**	,,	
4-Methyl-2-pentanone	ND	603	**	**	**	**	"	11	
Methyl tert-butyl ether	ND	121	"			n	"	71	
Methylene chloride	ND	603	"	11	"	11	Ħ	tt	
Naphthalene	ND	241	**	11	11	**	"	,,	
n-Propylbenzene	ND	121	"	**	"	11	11	11	
Styrene	ND	121	н	**	"	"	**	11	
1,1,1,2-Tetrachloroethane	ND	121	"	"	**		**	11	
1,1,2,2-Tetrachloroethane	ND	121	"	**	**	,,	,,	"	
Tetrachloroethene	ND	121	**	11	"	"	"	,,	
Гoluene	ND	121	"	"	"	,,	11	"	
1,2,3-Trichlorobenzene	ND	121	"	11	11	"	**	"	
1,2,4-Trichlorobenzene	ND	121	11	11	11	**			
1,1,1-Trichloroethane	ND	121	#1	n	"	11	**	11	
1,1,2-Trichloroethane	ND	121	"	11	**		**	**	
Trichloroethene	ND	121	**	**	"	Ħ		"	
Trichlorofluoromethane	ND	121	**	**		**		"	
1,2,3-Trichloropropane	ND	121		**	**	"	**	"	
1,2,4-Trimethylbenzene	ND	121	n	"	**	11	"	"	
1,3,5-Trimethylbenzene	ND	121	**	**	**	**	**	,,	
Vinyl chloride	ND	121	**	"		,,	**	**	
o-Xylene	ND	121	**	**	**	**	.,	17	
n,p-Xylene	ND	241	"	**	**	**		"	
Surr: 4-BFB	97.3 %	70-130						·	
Surr: 1,2-DCA-d4	81.7%	70-130							
Surr: Dibromofluoromethane	84.4 %	70-130							
Surr: Toluene-d8	95.7%	70-130							

North Creek Analytical - Portland





 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509,924,9290
 fax 509,924,9290

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1

Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U03SL (P1G0210-01) Soil			·		Sampled: 07/0	3/01 Rece	ived: 07/06/	01	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01			
Acenaphthylene	ND	13.4	" "	#	E1 A 62 / OIII	07/17/01 "	07/20/01	1071349	
Anthracene	ND	13.4	"	#		"		**	
Benzo (a) anthracene	ND	13.4	**	,,	**		**	"	
Benzo (a) pyrene	ND	13.4	,,	,,	**	**	**	"	
Benzo (b) fluoranthene	ND	13.4		"	**	 H	**	,,	
Benzo (ghi) perylene	ND	13.4	n n	**	u	,,	,,	"	
Benzo (k) fluoranthene	ND	13.4	**	**	"	,,	**	**	
Chrysene	ND	13.4	**	н	"	11	**	**	
Dibenzo (a,h) anthracene	ND	13.4	**		**	n		"	
Fluoranthene	ND	13.4	"	**	"	II.	,,	,,	
Fluorene	ND	13.4	H	11	**	11	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	ŧŧ.	11	**	11	"	.,	
Naphthalene	ND	13.4	**	"	"	,,	" "	"	
Phenanthrene	ND	13.4	n	**	"		" "	"	
Pyrene	ND	13.4	11	**	"	"	"	"	
Surr: Fluorene-d10								"	
Surr: Pyrene-d10	71.7 %	40-150							
Surr: Benzo (a) pyrene-d12	118 %	40-150							
Surr. Benzo (u) pyrene-u12	79.2 %	40-150							
01AMA9U04SL (P1G0210-02) Soil				S	Sampled: 07/03	3/01 Recei	ved: 07/06/0)1	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01	1071349	
Acenaphthylene	ND	13.4	ug ng ury	1	# #	07/17/01	07/20/01	10/1349	
Anthracene	ND	13.4		**	"	u.	**	"	
Benzo (a) anthracene	ND	13.4	**	Ħ	**	**	**	,,	
Benzo (a) pyrene	ND	13.4	**	**	"	**	,,	"	
Benzo (b) fluoranthene	ND	13.4	*1	"	**	"	"	"	
Benzo (ghi) perylene	ND	13.4	,,	"	,,			"	
Benzo (k) fluoranthene	ND	13.4	,,	Ħ		,,	"	"	
Chrysene	ND	13.4	**	n	**	,,		"	
Dibenzo (a,h) anthracene	ND	13.4	**	,,	**	**	,,	"	
Fluoranthene	ND	13.4	"	. ,,		,,	**	"	
Fluorene	ND	13.4	**		**	,,		"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	**	"		**	"	
Naphthalene	ND	13.4	**	11	**	"	"	,,	
Phenanthrene	ND	13.4	"			,,	"	,,	
Pyrene	ND ND	13.4	,,	**		"	"	"	
Surr: Fluorene-d10	75.4 %	40-150							

North Creek Analytical - Portland



Seattle 1729 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

ookane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503 906.9200 fax 503 906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541 383 9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U04SL (P1G0210-02) Soil			·		Sampled: 07/03	5/01 Rece	eived: 07/06/	01	
Surr: Pyrene-d10	106 %	40-150						-	
Surr: Benzo (a) pyrene-d12	84.9 %	40-150							
01AMA9U05SL (P1G0210-03) Soil					Sampled: 07/03	5/01 Rece	eived: 07/06/	01	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01	1071349	
Acenaphthylene	ND	13.4	11	Ħ	tt .	11	н	"	
Anthracene	ND	13.4	11	**	tt	**	"	**	
Benzo (a) anthracene	ND	13.4	11	**	**	**	11	"	
Benzo (a) pyrene	ND	13.4	11	Ħ	***	п	11	**	
Benzo (b) fluoranthene	ND	13.4	11	,,	**	**	n	**	
Benzo (ghi) perylene	ND	13.4	11	**		**	**	**	
Benzo (k) fluoranthene	ND	13.4	11	**	tr	**	"	**	
Chrysene	ND	13.4	11	"	11	11	"	**	
Dibenzo (a,h) anthracene	ND	13.4	11	**	11	"	"	**	
Fluoranthene	ND	13.4	11	н	tt	,,	"	**	
Fluorene	ND	13.4	**	**	**	n	**	**	
Indeno (1,2,3-cd) pyrene	ND	13.4	11	"	**	n	#	**	
Naphthalene	ND	13.4	**	"	11	11	**	11	
Phenanthrene	ND	13.4	tt	"	**	n	"	"	
Pyrene	ND	13.4	**		**	n	"	II.	
Surr: Fluorene-d10	81.2 %	40-150							
Surr: Pyrene-d10	110 %	40-150							
Surr: Benzo (a) pyrene-d12	92.6 %	40-150							
01AMA9U06SL (P1G0210-04) Soil					Sampled: 07/03	5/01 Rece	eived: 07/06/	01	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01	1071349	
Acenaphthylene	ND	13.4		"	"	"	"	"	
Anthracene	ND	13.4	**	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	11	,,	**	"	"	**	
Benzo (a) pyrene	ND	13.4	11		**	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	**	n	11	11	**	
Benzo (ghi) perylene	ND	13.4		**	**	11	"	"	
Benzo (k) fluoranthene	ND	13.4		**	**	11	**	**	
Chrysene	ND	13.4	**	*1	"	**	"	**	
Dibenzo (a,h) anthracene	ND	13.4	"	**	"	**	"	**	
Fluoranthene	ND	13.4	11			ŧı	ii .	"	
Fluorene	ND	13.4	"	11	"				
Indeno (1,2,3-cd) pyrene	ND	13.4	11	**	11		n	.,	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell. WA 98011-8244

 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

 509,924,9200
 fax 509,924,9290

Spokane

Portland

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering

2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

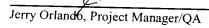
Reported:

07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Troith Creek Analytical - Portland												
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes			
01AMA9U06SL (P1G0210-04) Soil					Sampled: 07/0	3/01 Rece	ived: 07/06/	01				
Naphthalene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01					
Phenanthrene	ND	13.4	" " " " " " " " " " " " " " " " " " " "	"	"	11	07/20/01	1071349				
Pyrene	ND	13.4	"	**	**			**				
Surr: Fluorene-d10	78.6 %	40-150										
Surr: Pyrene-d10	114 %	40-150										
Surr: Benzo (a) pyrene-d12	83.4 %	40-150										
01AMA9U07SL (P1G0210-05) Soil				!	Sampled: 07/0	3/01 Rece:	ived: 07/06/0	01				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01	1071349				
Acenaphthylene	ND	13.4	"	**	**	"	11	1071547				
Anthracene	ND	13.4	"	"	**	**	*11	**				
Benzo (a) anthracene	ND	13.4	**	"	11	**	"	**				
Benzo (a) pyrene	ND	13.4	**	Ħ	11		**	**				
Benzo (b) fluoranthene	ND	13.4	n .	**	*1	"	**	n				
Benzo (ghi) perylene	ND	13.4	It	"	"	"	"	"				
Benzo (k) fluoranthene	ND	13.4	**	n		**	n	n				
Chrysene	ND	13.4	n	**	**	"	**	**				
Dibenzo (a,h) anthracene	ND	13.4	u u	**	11	**	**	"				
Fluoranthene	ND	13.4	Ħ	0	"	"	11	11				
Fluorene	ND	13.4	**	11	**	"	"	"				
Indeno (1,2,3-cd) pyrene	ND	13.4	**	11	#	**	Ħ					
Naphthalene	ND	13.4	**	**	"	*1		**				
Phenanthrene	ND	13.4	**		11	"	н	11				
Pyrene	ND	13.4	"	"	11	Ħ	**	u				
Surr: Fluorene-d10	77.8 %	40-150										
Surr: Pyrene-d10	112 %	40-150										
Surr: Benzo (a) pyrene-d12	88.4 %	40-150										

North Creek Analytical - Portland





11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420 9200 fax 425.420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924 9200 fax 509.924 9290 9405 SW Nimbus Avenue, Beaverton, OR 97008 7132 503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588 Seattle

Spokane

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U08SL (P1G0210-06) Soil			· · · · · · · · · · · · · · · · · · ·		Sampled: 07/0		ived: 07/06/		Hotes
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m				
Acenaphthylene	ND	13.4	"	"	EFA 82/UM	07/17/01	07/20/01	1071349	
Anthracene	ND	13.4	**	**	,,	"	"	**	
Benzo (a) anthracene	ND	13.4	"	"	**	,,	"	"	
Benzo (a) pyrene	ND	13.4	**	**	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	n .	**	**	**		"	
Benzo (ghi) perylene	ND	13.4	"	**	**	11	"	,,	
Benzo (k) fluoranthene	ND	13.4	"		"	"	"		
Chrysene	ND	13.4	,,	**		**	"	"	
Dibenzo (a,h) anthracene	ND	13.4	11	"	"	"	"	11	
Fluoranthene	ND	13.4	**	,,	,,	"		11	
Fluorene	ND	13.4	"	,,		"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	**	"	
Naphthalene	ND	13.4	**	**	,,	"	II .	11	
Phenanthrene	ND	13.4	,,	"	" "	"	n	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	72.8 %	40-150							
Surr: Pyrene-d10	112 %	40-150							
Surr: Benzo (a) pyrene-d12	87.3 %	40-150							
01 A M A 01 100C1 (D1 C0210 07) C 11									
01AMA9U09SL (P1G0210-07) Soil			 -	S	Sampled: 07/03	3/01 Recei	ved: 07/06/0)1	
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	07/17/01	07/20/01	1071349	
Acenaphthylene	ND	13.4	tt	**	"	11	**	n .	
Anthracene	ND	13.4	**	n	**	**	ff	Ħ	
Benzo (a) anthracene	ND	13.4	**	**	и .	**	**	Ħ	
Benzo (a) pyrene	ND	13.4	**	"	**	11	**	tt	
Benzo (b) fluoranthene	ND	13.4	"	н .	**	**	**	**	
Benzo (ghi) perylene	ND	13.4	"	"	Ħ	**	**	**	
Benzo (k) fluoranthene	ND	13.4	"	"	**	11	"	**	
Chrysene	ND	13.4	"	"	**	"	н	**	
Dibenzo (a,h) anthracene	ND	13.4	11	17	n	11	0	**	
Fluoranthene	ND	13.4	#	**	"	u u	n.	**	
Fluorene	ND	13.4	**	**	**	"	11	**	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	**	77	Ħ	**	**	
Naphthalene	ND	13.4	"	11	**	11	"	"	
Phenanthrene	ND	13.4	**	Ħ	u u	"	"	n .	
Pyrene	ND	13.4	"	**	n	**	**	**	
Surr: Fluorene-d10	78.9 %	40-150							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509,924,9200
 fax 509,924,9290

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM

Project Manager: Anne Krarawetter

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U09SL (P1G0210-07) Soil				S	ampled: 07/0	03/01 Rece	ived: 07/06/0)1	
Surr: Pyrene-d10 Surr: Benzo (a) pyrene-d12	111 % 85.1 %	40-150 40-150			•			-	

North Creek Analytical - Portland



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200
 fax 425.420.9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200
 fax 509.924.9290

Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland 503.906.9200 fax 503.906 9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

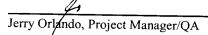
Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Percent Dry Weight (Solids) per Standard Methods North Creek Analytical - Portland

Analyte	Result	Reporting Limit Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA9U03SL (P1G0210-01) Soil				Sampled: 07/0	3/01 Recei	ved: 07/06/0)1	
% Solids	92.8	1.00 % by Weight		NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U04SL (P1G0210-02) Soil				Sampled: 07/0	3/01 Recei	ved: 07/06/0)1	
% Solids	94.0	1.00 % by Weight	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U05SL (P1G0210-03) Soil				Sampled: 07/0	3/01 Recei	ved: 07/06/0)1	
% Solids	92.9	1.00 % by Weight	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U06SL (P1G0210-04) Soil				Sampled: 07/0	3/01 Recei	ved: 07/06/0)1	
% Solids	87.0	1.00 % by Weight	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U07SL (P1G0210-05) Soil			_	Sampled: 07/0:	3/01 Recei	ved: 07/06/0)1	
% Solids	88.9	1.00 % by Weight	I	NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U08SL (P1G0210-06) Soil				Sampled: 07/03	3/01 Recei	ved: 07/06/0)1	
% Solids	93.6	1.00 % by Weight	1	NCA SOP	07/11/01	07/12/01	1071131	
01AMA9U09SL (P1G0210-07) Soil				Sampled: 07/03	3/01 Recei	ved: 07/06/0)1	
% Solids	94.0	1.00 % by Weight	1	NCA SOP	07/11/01	07/12/01	1071131	

North Creek Analytical - Portland





Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 | fax 425.420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503 906.9200 tax 503.906 9210 Portland

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541 383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B - Quality Control

North	Creek	Ana	lvtical	- Portl	and
-------	-------	-----	---------	---------	-----

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071199 - EPA 5035								· · · · · · · · · · · · · · · · · · ·		
Blank (1071199-BLK1)				Prepare	d & Analy	zed: 07/1	2/01			
Gasoline Range Organics	ND	4.00	mg/kg		· maiy	200. 07/1.				
Benzene	ND	0.100	"							
Toluene	ND	0.100	**							
Ethylbenzene	ND	0.100	**							
Xylenes (total)	ND	0.100	**							
Surr: a,a,a-TFT (FID)	3.03		"	2.50		121	60-140			
Surr: a,a,a-TFT (PID)	2.39		"	2.50		95.6	60-140			
LCS (1071199-BS1)				Prepare	d & Analy	zed: 07/1	2/01			
Gasoline Range Organics	66.3	4.00	mg/kg	62.5		106	70-120			
Surr: a,a,a-TFT (FID)	3.43		"	2.50		137	60-140			
LCS (1071199-BS2)				Prepare	d & Analy	zed: 07/13	2/01			
Benzene	0.872	0.100	mg/kg	1.00		87.2	70-120			
Toluene	0.818	0.100	"	1.00		81.8	70-120			
Ethylbenzene	0.822	0.100	**	1.00		82.2	70-120			
Xylenes (total)	2.58	0.100	**	3.00		86.0	70-120			
Surr: a,a,a-TFT (PID)	2.40		"	2.50		96.0	60-140			
LCS Dup (1071199-BSD1)				Prepare	d & Analy:	zed: 07/12	2/01			
Gasoline Range Organics	64.6	4.00	mg/kg	62.5		103	70-120	2.60	20	
Surr: a,a,a-TFT (FID)	3.34		"	2.50		134	60-140			
LCS Dup (1071199-BSD2)				Prepare	d & Analy	zed: 07/12	2/01			
Benzene	0.900	0.100	mg/kg	1.00		90.0	70-120	3.16	200	
Toluene	0.839	0.100	"	1.00		83.9	70-120	2.53	200	
Ethylbenzene	0.832	0.100	**	1.00		83.2	70-120	1.21	200	
Xylenes (total)	2.60	0.100	**	3.00		86.7	70-120	0.772	200	
Surr: a,a,a-TFT (PID)	2.54		"	2.50		102	60-140			

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210

Fast 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290 Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Gasoline Range Organics (n-Hexane to <n-Decane) and BTEX per AK101 and EPA 8021B - Quality Control

North (<u>Creek</u>	<u>Analy</u>	<u>ytical</u>	- P	ortland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071199 - EPA 5035										

Duplicate (1071199-DUP1)	Source: P1G0208-01		Prepared &				
Gasoline Range Organics	ND	3.35 mg/kg dry				0.388	50
Surr: a,a,a-TFT (FID)	10.9	"	9.74	112	60-140		
Duplicate (1071199-DUP2)	Source: P1G0210-01		Prepared & Analyzed: 07/12/01				
Gasoline Range Organics	ND	4.93 mg/kg dry		ND			50
Surr: a,a,a-TFT (FID)	15.7	"	13.8	114	60-140		

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420.9200 fax 425 420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9290 fax 509.924.9290 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541 383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amehitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/103 - Quality Control

	Nor	th Creek	Analyt	ical - P	ortland				-	
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071212 - EPA 3550 Fuels										
Blank (1071212-BLK1)				Prepare	d: 07/12/0	1 Analyz	zed: 07/14/0	0.1		
Diesel Range Organics	ND	25.0	mg/kg	Trepare	u. 07/12/0	Allalyz	ed: 07/14/0	01		
Residual Range Organics	ND	50.0	"							
Surr: 1-Chlorooctadecane	3.88		"	4.80		80.8	75-125			
Surr: Triacontane	6.77		"	6.25		108	50-150			
LCS (1071212-BS1)				Prepare	d: 07/12/0	1 Analyz	ed: 07/14/0	1 1		
Diesel Range Organics	116	25.0	mg/kg	129	u. 07/12/0	89.9	60-130	J1		
Residual Range Organics	81.7	50.0	"	79.0		103	60-130	•		
Surr: 1-Chlorooctadecane	3.56		"	4.80		74.2	75-125			S-07
Surr: Triacontane	6.75		"	6.25		108	50-150			3-07
LCS Dup (1071212-BSD1)				Prenare	d∙ 07/12/0	1 Analyz	ed: 07/14/(11		
Diesel Range Organics	112	25.0	mg/kg	129	4. 07/12/0	86.8	60-130	3.51	20	
Residual Range Organics	78.6	50.0	"	79.0		99.5	60-130	3.87	20	
Surr: 1-Chlorooctadecane	3.59		11	4.80		74.8	75-125			S-07
Surr: Triacontane	6.57		n	6.25		105	50-150			5 07
Duplicate (1071212-DUP1)	Sou	rce: P1G020	08-01	Prepare	d: 07/12/0	1 Analyz	ed: 07/16/0)1		
Diesel Range Organics	92.2		mg/kg dry		158			52.6	50	Q-14
Residual Range Organics	ND	50.0	"		ND			0.00	50	Q 14
Surr: 1-Chlorooctadecane	4.78		"	5.36		89.2	75-125			
Surr: Triacontane	8.25		"	6.98		118	50-150			
Duplicate (1071212-DUP2)	Sou	rce: P1G02	10-05	Prepare	d: 07/12/0	1 Analyz	ed: 07/16/0)1		
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Residual Range Organics	88.9	50.0	"		174			64.7	50	Q-14
Surr: 1-Chlorooctadecane	3.66		"	5.40		67.8	75-125			S-07
s = -										

7.03

6.49

North Creek Analytical - Portland

Surr: Triacontane

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

50-150

92.3



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420.9200 fax 425 420.9210

Spokane

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland 503.906 9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383 9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North C	reek	Analytical	l - Portland
---------	------	------------	--------------

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
D / 1 1001/00										1.0.00

Baten	107	1499	- EPA	3050

Blank (1071499-BLK1)				Prepared: 07/20/01 Analyzed: 07/21/01
Arsenic	ND	0.500	mg/kg	11cpared: 07/20/01 Analyzed: 07/21/01
Barium	ND	1.00	mg/kg	
Cadmium	ND	0.500	**	
Chromium	ND ND	0.500	**	
Lead	ND ND	0.500	,,	
Nickel	ND	1.00	"	
Vanadium	ND	2.50	**	
	ND	2.30		
LCS (1071499-BS1)				Prepared: 07/20/01 Analyzed: 07/21/01
Arsenic	11.0	0.500		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

LCS (10/1499-BS1)					Analyz	zed: 07/21/01
Arsenic	11.0	0.500	mg/kg	10.0	110	80-120
Barium	11.0	1.00	"	10.0	110	80-120
Cadmium	10.9	0.500	11	10.0	109	80-120
Chromium	11.7	0.500	**	10.0	117	80-120
Lead	10.7	0.500	n	10.0	107	80-120
Nickel	11.5	1.00	"	10.0	115	80-120
Vanadium	11.4	2.50	n n	10.0	114	80-120

Duplicate (1071499-DUP1)	Sour	ce: P1G020	09-01	Prepared: 07/20/01 Analyze	d: 07/21/01		
Arsenic	1.92	0.500	mg/kg dry	1.93	0.519	40	
Barium	161	1.00	**	136	16.8	40	
Cadmium	ND	0.500	"	ND		40	
Chromium	6.41	0.500	"	6.06	5.61	40	
Lead	7.45	0.500	"	7.93	6.24	40	
Nickel	11.7	1.00	**	11.5	1.72	40	
Vanadium	192	2.50	"	178	7.57	40	

Matrix Spike (1071499-MS1)	Sour	Source: P1G0209-01			d: 07/20/0	1 Analyz	Analyzed: 07/21/01		
Arsenic	15.4	0.500	mg/kg dry	11.8	1.93	114	75-125		
Barium	180	1.00	"	11.8	136	NR	75-125	Q-03	
Cadmium	12.5	0.500	**	11.8	ND	106	75-125		
Chromium	23.2	0.500	"	11.8	6.06	145	75-125	Q-03	
Lead	19.9	0.500	"	11.8	7.93	101	75-125		
Nickel	26.4	1.00	**	11.8	11.5	126	75-125	Q-02	
Vanadium	214	2.50	**	11.8	178	NR	75-125	Q-03	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc. **Environmental Laboratory Network**



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425,420,9200
 fax 425,420,9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509,924,9200
 fax 509,924,9200

Spokane

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906 9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	D 1	Reporting		Spike	Source		%REC		RPD	
· may to	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1071499 - EPA 3050

Matrix Spike (1071499-MS2)	Sour	Prepare	d: 07/20/0					
Arsenic	14.1	0.500	mg/kg dry	12.0	1.97	101	75-125	
Barium	199	1.00	"	12.0	174	NR	75-125	Q-03
Cadmium	12.1	0.500	"	12.0	ND	101	75-125	Q-03
Chromium	30.8	0.500	"	12.0	18.3	104	75-125	
Lead	18.4	0.500	"	12.0	6.70	97.5	75-125	
Nickel	34.0	1.00	n	12.0	21.0	108	75-125	
Vanadium	147	2.50	11	12.0	137	83.3	75-125	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425-420-9200 fax 425-420-9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

Spokane

509.924.9200 fax 509.924.9290

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland 503.906.9200 fax 503.906 9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701 5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071259 - EPA 3550										
Blank (1071259-BLK1)				Prepare	d: 07/14/0	1 Analyz	ad: 07/19/)1		
Aroclor 1016	ND	67.0	ug/kg	Tropure	A. 07/14/0	Anaiyz	cu. 07/18/0	<u> </u>		
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	**							
Aroclor 1242	ND	67.0	u							
Aroclor 1248	ND	67.0	**							
Aroclor 1254	ND	67.0	11							
Aroclor 1260	ND	67.0	**							
Surr: 2,4,5,6-Tetrachloro-m-xylene	31.7		"	33.3		95.2	63-119			· — —
Surr: Decachlorobiphenyl	36.5		"	33.3		110	52-131			
LCS (1071259-BS1)				Prenare	d: 07/14/0	l Analyza	ed: 07/18/0	11		
Aroclor 1016	367	67.0	ug/kg	333	u. 0//14/0	110	57-132	71		
Aroclor 1260	360	67.0	"	333		108	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	35.0		"	33.3		105	63-119			
Surr: Decachlorobiphenyl	41.0		"	33.3		123	52-131			
Matrix Spike (1071259-MS1)	Soi	urce: P1G02	08-01	Prenare	d: 07/14/0	1 Analyza	ed: 07/18/0	11		
Aroclor 1016	323	67.0	ug/kg dry	372	ND	86.8	57-132	,1		
Aroclor 1260	359	67.0	"	372	ND	96.5	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	29.8	· · · · · · · · · · · · · · · · · · ·	"	37.2		80.1	63-119			
Surr: Decachlorobiphenyl	40.0		"	37.2		108	52-131			
Matrix Spike Dup (1071259-MSD1)	Soi	urce: P1G02	08-01	Prepare	d: 07/14/0	l Analyza	ed: 07/18/0)1		
Aroclor 1016	340	67.0	ug/kg dry	372	ND	91.4	57-132	5.13	50	
Aroclor 1260	370	67.0	"	372	ND	99.5	60-136	3.02	50	
Surr: 2,4,5,6-Tetrachloro-m-xylene	31.0		"	37.2		83.3	63-119			
Surr: Decachlorobiphenyl	40.5		"	37.2		109	52-131			

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

Spokane

425.420.9200 fax 425.420.9210
East 11115 Montgomery, Suite B. Spokane, WA 99206-4776
509.924.9200 fax 509.924.9290
9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Batch 1071301 - EPA 5035

Acetone ND 2.50 ug/kg Bromoehene ND 1.00 " Bromochloromethane ND 1.00 " Bromochloromethane ND 1.00 " Bromoform ND 1.00 " Bromomorm ND 5.00 " Bromomorm ND 1.00 " Calbumorm ND 1.00 " Carbon tertachloride ND 1.00 " Carbon tertachloride ND 1.00 " Chloromethane ND 1.00 " Chloromethane ND 1.00 " Chloromethane ND	Blank (1071301-BLK1)				Prepared & Analyzed: 07/16/01
Benzene ND 1.00 " Bromobehzere ND 1.00 " Bromochloromethane ND 1.00 " Bromochloromethane ND 1.00 " Bromoform ND 1.00 " Bromoform ND 5.00 " Bromoform ND 5.00 " 2-Butanone ND 1.00 " Butylbenzene ND 1.00 " cert-Butylbenzene ND 1.00 " Carbon tetradbirde ND 1.00 " Carbon tetradbirde ND 1.00 " Chlorochane ND	Acetone	ND	25.0	ug/kg	1.10pu.00 & 1.thury2.00. 07/10/01
Bromochloromethane ND 1.00 Bromochloromethane ND 1.00 Bromochloromethane ND 1.00 Bromochloromethane ND 1.00 Bromochloromethane ND 5.00 Bromochloromethane ND 5.00	Benzene	ND			
Bromodichloromethane ND 1.00 n Bromoform ND 1.00 n Bromomethane ND 5.00 n 2-Butanone ND 5.00 n n-Butybenzene ND 5.00 n see-Butybenzene ND 1.00 n Carbon disulfide ND 10.0 n Carbon disulfide ND 1.00 n Chlorochane ND 1.00 n 2-Chlorotoluene ND 1.00 n 2-Chlorotoluene ND 1.00 n 1,2-Dihromo-3-chloropropane ND 1.00 n 1,2-Dihromo-3-chloropropane ND 1.00 n 1,2-Dichlorobenzene ND 1.00 n		ND	1.00	**	
Bromofcin ND 1.00 " Bromoform ND 1.00 " Bromoferhane ND 5.00 " 2-Butanone ND 10.0 " n-Butylbenzene ND 5.00 " ser-Butylbenzene ND 1.00 " carbon disulfide ND 10.0 " Carbon disulfide ND 1.00 " Chlorochrace ND 1.00 " Chlorochrace ND 1.00 " Chlorochrane ND 1.00 " Chlorochrane ND 1.00 " Chlorochrane ND 1.00 " Chlorochrane ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropopane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichloro		ND	1.00	"	
Bromomethane ND 1.00 " 2-Butanone ND 5.00 " n-Butylbenzene ND 5.00 " sec-Butylbenzene ND 5.00 " terr-Butylbenzene ND 1.00 " Carbon disulfide ND 10.0 " Carbon tetrachloride ND 1.00 " Chlorobenzene ND 1.00 " Chlorobenzene ND 1.00 " Chloroform ND 1.00 " Chloroform ND 1.00 " Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 "	Bromodichloromethane	ND		11	
Bromomethane ND 5.00 " 2-Butanone ND 10.0 " n-Butylbenzene ND 5.00 " sec-Butylbenzene ND 1.00 " carbon disulfide ND 10.0 " Carbon disulfide ND 1.00 " Chlorobenzene ND 1.00 " Chlorobethane ND 1.00 " Chlorochtane ND 1.00 " 1,2-Dibromochlane ND 1.00 " 1,2-Dibromochlane ND 1.00 " 1,2-Dichlorochtane ND 1.00 " 1,3-Dichloroc	Bromoform	ND		11	
ND	Bromomethane	ND		**	
n-Butylbenzene	2-Butanone	ND	10.0	#1	
sec-Butylbenzene ND 1.00 " tert-Butylbenzene ND 1.00 " Carbon disulfide ND 1.00 " Carbon tetrachloride ND 1.00 " Chlorobenzene ND 1.00 " Chlorochtane ND 1.00 " Chloroform ND 1.00 " Chlorochtane ND 1.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromo-4-ane ND 1.00 " 1,2-Dibrhorochtane ND 1.00 " 1,2-Dibrhorochtane ND 1.00 " 1,4-Dichlorochtane ND 1.00 " 1,1-Dichlorochtane ND 1.00 " 1,1-Dichlorochtene ND 1.00 "<	n-Butylbenzene	ND		"	
tert-Butylbenzene ND 1.00 " Carbon disulfide ND 10.0 " Carbon tetrachloride ND 1.00 " Chloroethane ND 1.00 " Chloroethane ND 1.00 " Chloroethane ND 1.00 " Chloroethane ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichloroethane ND 1.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,2-Dichloroethene ND 1.00	sec-Butylbenzene	ND		**	
Carbon disulfide ND 10.0 " Carbon tetrachloride ND 1.00 " Chlorobenzene ND 1.00 " Chlorodrane ND 1.00 " Chloroform ND 1.00 " Chlorodoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,3-Dichlorothane ND 1.00 " 1,4-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 <t< td=""><td>tert-Butylbenzene</td><td></td><td></td><td>**</td><td></td></t<>	tert-Butylbenzene			**	
Carbon tetrachloride ND 1.00 " Chlorobenzene ND 1.00 " Chlorochtane ND 1.00 " Chloroform ND 1.00 " Chlorochulene ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,2-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,2-Dichlorothene ND 1.00 " 1,2-Dichlorothene ND 1.00	Carbon disulfide			"	
Chlorobenzene ND 1.00 " Chloroctdane ND 1.00 " Chloroform ND 1.00 " Chlorotduene ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromo-3-chloropropane ND 1.00 " 1,2-Dibromochlane ND 1.00 " 1,2-Dibloromochlane ND 1.00 " 1,2-Diblorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,2-Dichlorothane ND 1.00 " 1,2-Dichlorothene ND 1.00 " 1,3-Dichlorothene ND 1.00 " 1,2-Dichlorothene ND 1.00	Carbon tetrachloride			**	
Chloroethane ND 1.00 " Chloroform ND 1.00 " Chloromethane ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " 1,1-Dichloroethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND	Chlorobenzene			**	
Chloroform ND 1.00 " Chloromethane ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,1-Dichlorothene ND 1.00 " 1,1-Dichlorothene ND 1.00 " trans-1,2-Dichlorothene ND 1.00 " trans-1,2-Dichlorothene ND 1.00 " trans-1,2-Dichlorothene ND	Chloroethane			"	
Chloromethane ND 5.00 " 2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromochlane ND 1.00 " 1,2-Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorotenzene ND 1.00 " 1,1-Dichlorotenzene ND 1.00 " 1,2-Dichlorotenzene ND <td>Chloroform</td> <td></td> <td></td> <td></td> <td></td>	Chloroform				
2-Chlorotoluene ND 1.00 " 4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " 1,1-Dichlorothane ND 5.00 " 1,1-Dichlorothane ND 1.00 " 1,1-Dichlorothane ND 1.00 " 1,1-Dichlorothene ND 1.00 " 1,1-Dichlorothene ND 1.00 " 1,1-Dichlorothene ND 1.00 " 1,1-Dichlorothene ND 1.00 " trans-1,2-Dichlorothene ND 1.00 " trans-1,2-Dichlorothene ND 1.00 " 1,3-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 <td>Chloromethane</td> <td></td> <td></td> <td>**</td> <td></td>	Chloromethane			**	
4-Chlorotoluene ND 1.00 " 1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 "	2-Chlorotoluene			**	
1,2-Dibromo-3-chloropropane ND 5.00 " Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	4-Chlorotoluene	ND		"	
Dibromochloromethane ND 1.00 " 1,2-Dibromoethane ND 1.00 " Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,2-Dibromo-3-chloropropane			**	
1,2-Dibromoethane ND 1.00 " Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	Dibromochloromethane			"	
Dibromomethane ND 1.00 " 1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " 1,1-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,2-Dibromoethane			**	
1,2-Dichlorobenzene ND 1.00 " 1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	Dibromomethane			**	
1,3-Dichlorobenzene ND 1.00 " 1,4-Dichlorobenzene ND 1.00 " Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,2-Dichlorobenzene	ND		11	
Dichlorodifluoromethane ND 5.00 " 1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,3-Dichlorobenzene	ND		**	
1,1-Dichloroethane ND 1.00 " 1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,4-Dichlorobenzene	ND	1.00	tt	
1,2-Dichloroethane ND 1.00 " 1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	Dichlorodifluoromethane	ND	5.00	**	
1,1-Dichloroethene ND 1.00 " cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,1-Dichloroethane	ND	1.00	0	
cis-1,2-Dichloroethene ND 1.00 " trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,2-Dichloroethane	ND	1.00		
trans-1,2-Dichloroethene ND 1.00 " 1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	1,1-Dichloroethene	ND	1.00	"	
1,2-Dichloropropane ND 1.00 " 1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	cis-1,2-Dichloroethene	ND	1.00	"	
1,3-Dichloropropane ND 1.00 " 2,2-Dichloropropane ND 1.00 "	trans-1,2-Dichloroethene	ND	1.00	"	
2,2-Dichloropropane ND 1.00 "	1,2-Dichloropropane	ND	1.00		
• • • • • • • • • • • • • • • • • • • •		ND	1.00	"	
1,1-Dichloropropene ND 1.00 "	2,2-Dichloropropane	ND	1.00	n	
	1,1-Dichloropropene	ND	1.00	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509 924.9200 fax 509.924.9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503 906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588 Portland

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

· f											
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	

Batch	107	1301	- EPA	5035
--------------	-----	------	-------	------

Blank (1071301-BLK1)				Prepared & Analyzed: 07/16/01	
cis-1,3-Dichloropropene	ND	1.00	ug/kg		
trans-1,3-Dichloropropene	ND	1.00	11		
Ethylbenzene	ND	1.00	**		
Hexachlorobutadiene	ND	2.00	**		
2-Hexanone	ND	10.0	0		
Isopropylbenzene	ND	2.00	11		
p-lsopropyltoluene	ND	2.00	"		
4-Methyl-2-pentanone	ND	5.00	n		
Methyl tert-butyl ether	ND	1.00	**		
Methylene chloride	ND	5.00			
Naphthalene	ND	2.00	"		
n-Propylbenzene	ND	1.00	11		
Styrene	ND	1.00	"		
1,1,1,2-Tetrachloroethane	ND	1.00	n .		
1,1,2,2-Tetrachloroethane	ND	1.00	n		
Tetrachloroethene	ND	1.00	**		
Toluene	ND	1.00	**		
1,2,3-Trichlorobenzene	ND	1.00	**		
1,2,4-Trichlorobenzene	ND	1.00	•		
1,1,1-Trichloroethane	ND	1.00	"		
1,1,2-Trichloroethane	ND	1.00	"		
Trichloroethene	ND	1.00	"		
Trichlorofluoromethane	ND	1.00	**		
1,2,3-Trichloropropane	ND	1.00	"		
1,2,4-Trimethylbenzene	ND	1.00	**		
1,3,5-Trimethylbenzene	ND	1.00	**		
Vinyl chloride	ND	1.00	"		
o-Xylene	ND	1.00	**		
m,p-Xylene	ND	2.00	"		
Surr: 4-BFB	19.6		"	20.0 98.0 70-130	
Surr: 1,2-DCA-d4	16.8		"	20.0 84.0 70-130	
Surr: Dibromofluoromethane	17.2		n	20.0 86.0 70-130	
Surr: Toluene-d8	19.2		"	20.0 96.0 70-130	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



11720 North Creek Pkwy N, Suite 400. Bothell, WA 98011-8244 425 420 9200 Tax 425 420.9210 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509 924 9200 Tax 509.924.9290 Seattle

Spokane

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland

503.906.9200 fax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	11	Spike	Source		%REC		RPD	
Retch 1071201 ED 4 5025	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1071301 - EPA 5035										
LCS (1071301-BS1)				Prepare	d & Analy	zed: 07/10	5/01			
Benzene	20.4	1.00	ug/kg	20.0		102	80-135			
Chlorobenzene	19.9	1.00	**	20.0		99.5	80-135			
1,1-Dichloroethene	18.7	1.00	11	20.0		93.5	60-150			
Toluene	21.0	1.00	**	20.0		105	80-130			
Trichloroethene	20.1	1.00	11	20.0		100	70-135			
Surr: 4-BFB	20.5			20.0		102	70-130			
Surr: 1,2-DCA-d4	17.4		"	20.0		87.0	70-130 70-130			
Surr: Dibromofluoromethane	18.4		"	20.0		92.0	70-130 70-130			
Surr: Toluene-d8	18.9		"	20.0		94.5	70-130			
LCS Dup (1071301-BSD1)				Prepare	d & Analy	zed: 07/16	5/01			
Benzene	20.3	1.00	ug/kg	20.0		102	80-135	0.491	25	
Chlorobenzene	19.7	1.00	11	20.0		98.5	80-135	1.01	25	
1,1-Dichloroethene	18.8	1.00	11	20.0		94.0	60-150	0.533	25	
Toluene	20.7	1.00	u	20.0		104	80-130	1.44	25 25	
Trichloroethene	19.8	1.00	**	20.0		99.0	70-135	1.44	25 25	
Surr: 4-BFB	20.5		"	20.0		102	70-130			
Surr: 1,2-DCA-d4	17.3		"	20.0		86.5	70-130			
Surr: Dibromofluoromethane	18.5		"	20.0		92.5	70-130			
Surr: Toluene-d8	18.9		"	20.0		94.5	70-130			
Matrix Spike (1071301-MS1)	Sour	ce: P1G02	08-01	Prepared	d & Analy:	zed: 07/16	5/01			
Benzene	1810	83.7	ug/kg dry	1870	ND	96.8	60-135			
Chlorobenzene	1760	83.7	"	1870	ND	94.1	65-125			
1,1-Dichloroethene	1870	83.7	"	1870	ND	100	60-135			
Toluene	1870	83.7	**	1870	ND	100	60-125			
Trichloroethene	1730	83.7	**	1870	ND	92.5	60-125			
Surr: 4-BFB	19.5		"	18.7		104	70-130			
Surr: 1,2-DCA-d4	15.7		"	18.7		84.0	70-130			
Surr: Dibromofluoromethane	16.9		"	18.7		90.4	70-130			
Surr: Toluene-d8	17.9		"	18.7		95.7	70-130			

North Creek Analytical - Portland





Spokane

 Seattle
 11720 North Creek Pkwy N, Suite 400, Botheli, WA 98011-8244 425-420-9200 fax 425-420-9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509-924-9200 fax 509.924-9290

 Portland
 9405 SW Nimbus Avenue, Beaverton, 0R 97008-7132

503 906.9200 tax 503.906.9210

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported:

07/31/01 13:05

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Amelute		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1071301 - EPA 5035

Matrix Spike Dup (1071301-MSD1)	Sour	ce: P1G02	208-01	Prepare	d & Analy	zed: 07/1	6/01		
Benzene	1890	83.7	ug/kg dry	1870	ND	101	60-135	4.32	25
Chlorobenzene	1830	83.7	"	1870	ND	97.9	65-125	3.90	25
1,1-Dichloroethene	1950	83.7	"	1870	ND	104	60-135	4.19	25
Toluene	1960	83.7	**	1870	ND	105	60-125	4.70	25
Trichloroethene	1820	83.7	11	1870	ND	97.3	60-125	5.07	25
Surr: 4-BFB	19.3		"	18.7		103	70-130		
Surr: 1,2-DCA-d4	15.5		"	18.7		82.9	70-130		
Surr: Dibromofluoromethane	16.7		"	18.7		89.3	70-130		
Surr: Toluene-d8	17.9		"	18.7		95.7	70-130		

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



 Seattle
 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425 420 9200
 fax 425.420.9210

 Spokane
 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509-924.9200
 fax 509.924.9290

 Portland
 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906-9200
 fax 503.906-9210

 Bend
 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.382-9310
 fax 541.382-7588

Spokane

Portland

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
D . 1 . 40 = 4 4 4 0										

Batch	<u>1071</u>	<u> 34</u> 9 -	EPA	3550

Blank (1071349-BLK1)				Prepared: 0	7/17/01 Analyz	- d. 07/10/01	
Acenaphthene	ND	13.4	ug/kg	Trepared, 07	717/01 Allaly	zea: 07/19/01	
Acenaphthylene	ND	13.4	"				
Anthracene	ND	13.4	**				
Benzo (a) anthracene	ND	13.4	**				
Benzo (a) pyrene	ND	13.4	**				
Benzo (b) fluoranthene	ND	13.4	**				
Benzo (ghi) perylene	ND	13.4	Ħ				
Benzo (k) fluoranthene	ND	13.4	"				
Chrysene	ND	13.4	11				
Dibenzo (a,h) anthracene	ND	13.4	**				
Fluoranthene	ND	13.4					
Fluorene	ND	13.4	tt				
Indeno (1,2,3-cd) pyrene	ND	13.4	**				
Naphthalene	ND	13.4	**				
Phenanthrene	ND	13.4	**				
Pyrene	ND	13.4	**				
Surr: Fluorene-d10	62.7		"	83.3	75.3	40-150	
Surr: Pyrene-d10	81.5		"	83.3	97.8	40-150	
Surr: Benzo (a) pyrene-d12	70.1		"	83.3	84.2	40-150	
LCS (1071349-BS1)				Prepared: 07	/17/01 Analyz	ed: 07/19/01	
Acenaphthene	130	13.4	ug/kg	167	77.8	33-139	
Benzo (a) pyrene	142	13.4	"	167	85.0	45-149	
Pyrene	139	13.4	"	167	83.2	39-138	
Surr: Fluorene-d10	65.2		"	83.3	78.3	40-150	
Surr: Pyrene-d10	84.7		"	83.3	102	40-150	
Surr: Benzo (a) pyrene-d12	75.2		"	83.3	90.3	40-150	

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 11720 North Creek Pkwy IN, Suite 400, Botneii. vvA 98011-824 425.420.9200 fax 425.420.9200 fax 425.420.9200 fax 509.924.9290 fax 509.924.9290 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 fax 503.9306.9210 fax 503.93

Spokane

Portland

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North	Creek	Analytical	l - Portland

1										
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch	1071349	- EPA 3550)
-------	---------	------------	---

Matrix Spike (1071349-MS1)	Source: P1G0206-01			Prepared: 07/17/01 Analyzed: 07/19/01						
Acenaphthene	143	13.4	ug/kg dry	189				01		
Benzo (a) pyrene	165	13.4	ug/kg ury		ND	75.7	33-139			
Pyrene				189	ND	87.3	45-149			
	156	13.4	"	189	ND	82.5	39-138			
Surr: Fluorene-d10	139		"	94.4		147	40-150			
Surr: Pyrene-d10	177		"	94.4						A-01
Surr: Benzo (a) pyrene-d12	164		"			188	40-150			A-01
	104			94.3		174	40-150			A-01
Matrix Spike Dup (1071349-MSD1)	Sour	ce: P1G02	06-01	Prenare	d· 07/17/0	1 Analys	zed: 07/19/	01		
Acenaphthene	126	13.4	ug/kg dry	189	ND	66.7	33-139			
Benzo (a) pyrene	166	13.4	"B" "B ury					12.6	60	
Pyrene				189	ND	87.8	45-149	0.604	60	
	156	13.4	**	189	ND	82.5	39-138	0.00	60	
Surr: Fluorene-d10	65.7		"	94.4		69.6	40-150			
Surr: Pyrene-d10	92.3		"	94.4		97.8	40-150			
Surr: Benzo (a) pyrene-d12	86.4		"	94.3		91.6	40-150			

North Creek Analytical - Portland





Seatle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 425.420.9200 fax 425.420.9210

East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9290 fax 509.924.9290

9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 Portland

503.906 9200 fax 503.906.9210

20332 Empire Avenue, Surte F-1, Bend, OR 97701-5711

0.105

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

% Solids

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland									
Analyte	Result	Reporting Limit Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1071131 - Dry Weight									
Duplicate (1071131-DUP1) % Solids	Source: P1G0120-01				l Analyz	ed: 07/12/0)1		· · · · · · · · · · · · · · · · · · ·
	86.7	1.00 % by Weight		87.2			0.575	20	
Duplicate (1071131-DUP2)	Soui	Prepare	d: 07/11/0	1 Analyz	ed: 07/12/0)1			
% Solids	77.5	1.00 % by Weight		74.5			3.95	20	
Duplicate (1071131-DUP3)	Source: P1G0120-03		Prepare	d: 07/11/0	l Analyz	ed: 07/12/()1		
% Solids	73.4	1.00 % by Weight		76.1			3.61	20	
Duplicate (1071131-DUP4)	504166:1100004-03		Prepare	d: 07/11/0	1 Analyze	ed: 07/12/0)1		
% Solids	98.6	1.00 % by Weight		98.9			0.304	20	
Duplicate (1071131-DUP5)	Sour	ce: P1G0064-04	Prepare	d: 07/11/0	1 Analyza	ed: 07/12/0)1		
9/ Colida									

1.00% by Weight

95.2

95.1

North Creek Analytical - Portland



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244

425.420.9200 fax 425.420.9210

Spokane

425.420.9206 1ax 425.420 9210
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
509 924 9220 1ax 509.924.9290
9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906 9200 1ax 503.906.9210
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 1ax 541.382.7588 Portland

Bristol Environmental & Engineering 2000 W. International Airport Rd. #C-1 Anchorage, AK 99502-1116

Project: Amchitka

Project Number: 210901, PO# 21090 Project Manager: Anne Krarawetter

Reported: 07/31/01 13:05

Notes and Definitions

A-01	Suspected double surrogate added during extraction.
D-09	Detected hydrocarbons in the diesel range appear to be due to overlap of heavy/oil range hydrocarbons.
Q-02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
Q-03	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
Q-06	Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
Q-14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
R-09	Analyte detected below MRL in sample extract. Percent solids calculation raised result above MRL. Result reported as Estimated Value.
S-07	Surrogate recovery is out of control limits. QA criteria are met when one surrogate is within control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference